WATTENBERG DISPOSAL, LLC.

WORLD TRADE CENTER
1675 BROADWAY, 28TH FLOOR
DENVER, COLORADO 80202-4628
TELEPHONE (303) 825-4822
FACSIMILE (303) 825-4825
www.kpk.com

January 31, 2011

Mr. Nathan Wiser
United States EPA Region 8
8OC-EISC
1595 Wynkoop Street
Denver, CO 80202-1129

~~Color~~
CO 10516-02115

RE: Wattenberg Disposal, LLC
Annual Third Party Audit
Semi-annual Groundwater Report

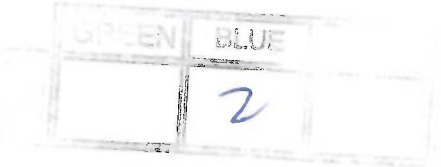
Dear Mr. Wiser,

Enclosed please find the Annual Third Party Audit performed by LT Environmental. I have also attached a copy of the semi-annual Groundwater Monitoring Report carried out by Michael Hattel from APEX Consulting Services. This report comes two weeks delayed due to re-sampling because of anomalies in the initial samples. I apologize for any inconvenience this could have caused.

Please do not hesitate contacting me if you require any further information at (303) 825-4822 or slaramesa@kpk.com

Sincerely,

Susana Lara-Mesa
Engineering Project Manager



Cc: Caren Johannes, HMWMD
Troy Swain, Weld County Dept. of Public Health and Environment
KPK

COMPLIANCE / ENGINEERING / REMEDIATION

LT Environmental, Inc.
4600 West 60th Avenue
Arvada, Colorado 80003
T 303.433.9788 / F 303.433.1432

January 24, 2012

Ms. Susan Lara-Mesa
K.P. Kauffman Company, Inc.
1675 Broadway, Suite 2800
Denver, Colorado 80202

RE: Environmental Audit Wattenberg Disposal Facility, LLC
K.P. Kauffman Company, Inc.
4468 County Road 19,
Weld County, Colorado

Dear Ms. Lara-Mesa:

At the request of K.P. Kauffman Company, Inc. (Wattenberg Disposal Facility, LLC), LT Environmental, Inc. (LTE) performed an environmental audit at the Suckla Farms Injection Well #1 site at 4468 County Road 19, Weld County, Colorado, and generally located in the SE ¼ of the SE ¼ of the NW ¼ of Section 10, Township 1 North, Range 67 West of the 6th Principal Meridian. The purpose of the audit was to specifically evaluate the adequacy of the facility's surface operation and maintenance in preventing shallow groundwater contamination as required by the United States (U.S.) Environmental Protection Agency (EPA) Underground Injection Control (UIC) Permit #CO 1516-2115.

The audit consisted of:

- Visual site reconnaissance and photo documentation of the facility conducted on December 28, 2011;
- On-site interviews with Mr. Roy Teter, Field Manager, and Mr. Bill Dean, Plant Operator;
- Review of the Weld County Department of Public Health and Environment (WCDPHE) 2nd Semi-annual Inspection 2011, dated October 20, 2011;
- Review of Apex Consulting Services, Inc. (APEX) groundwater monitoring data (June and July 2011) submitted to WCDPHE and the Colorado Department of Public Health and Environment (CDPHE); and
- Review of Daily Evaluation and Daily Visual Walkthrough Inspection on Tanks and Valves forms.

Background

The facility was originally constructed in 1972 by the Amoco Production Company to dispose of production water from oil and gas wells in the Denver-Julesburg (DJ) Basin. Current operations at the facility include the deep injection disposal of non-hazardous Class I and Class II liquid waste as defined in 40 Code of Federal Regulations (CFR) 144.6. The operation at the facility generally consists of injecting water produced from oil and gas operation and non-hazardous industrial waste into the Lyons Formation between depths of 9,276 feet and 9,418 feet below ground surface (bgs). A shallow groundwater monitoring plan for the facility was prepared by National Environmental Services, Inc (NES). dated January 3, 2002. The shallow groundwater monitoring plan was subsequently approved by the CDPHE.

Site Reconnaissance

During the site reconnaissance, LTE visually checked for leakage or other releases at each installation having the potential to impact the environment. The installations included the tank farm, pump building, sumps, surface pipes, off-load pad, storage building, and injection wellhead and well house. Photographs taken during the site reconnaissance are provided in Attachment 1.

LTE did not observe obvious evidence of staining, odors, dead/stressed vegetation, or releases to the environment from the surface operation and maintenance at the facility with the exception of the following:

- Evidence of stained concrete within the secondary containment was observed adjacent to the southeast most 400 barrel (bbl) tank (Photo 2).

- Evidence of stained concrete within the secondary containment was observed adjacent to the north most 400-bbl and 500-bbl tanks. The staining was reportedly associated with equipment maintenance due to colder temperatures (Photo 3).

- Evidence of stained asphalt was observed in the truck unloading area (Photo 4). The staining was reported by KPK to be coming from the trucks leaking engine oil and other fluids.

Interviews

Interviews with the above-referenced persons yielded the following information regarding the prevention of groundwater contamination:

- Mr. Teter has managed the facility since 1998. He reported that, to his knowledge, there have been no significant environmental incidents at the facility or environmental impacts to the property since the last audit of the facility. Mr. Teter did indicate the only incident which he recalled resulting in a release was when lightning struck the

pump house, resulting in a release from the northeast most 300-bbl water tank. Mr. Teter indicated the release was contained within the concrete secondary containment.

- Mr. Dean reported he performs a visual inspection of the entire facility for leaks and releases each morning. LTE reviewed Mr. Dean's daily record keeping, Material Safety Data Sheets (MSDSs), and Spill Prevention, Control, and Countermeasure (SPCC) Plan.

Report Review

As part of the audit we reviewed daily records and reports prepared by on-site staff, WCDHE, and APEX. A brief summary or our review is presented below

- The Daily Evaluation and Daily Visual Walkthrough Inspection on Tanks and Valves Sheets logged the volume of barrels injected during 2011 and that Mr. Dean has not observed a release during 2011.

- Mr. Troy Swain, WCDPHE, reported that during the October 2011 Semi-annual Inspection the facility was in compliance.

- LTE reviewed the APEX June 2011 semi-annual groundwater monitoring report for the Wattenberg Disposal Facility, LLC (Attachment 3). The letter report indicated that three groundwater samples were collected from observation wells (OW-1, OW-2, and OW-3) on June 21, 2011. The groundwater samples were analyzed for calcium, magnesium, potassium, sodium, chloride, nitrate, nitrite, sulfate, Total Organic Carbon (TOC), bicarbonate, carbonate, benzene, toluene, ethylbenzene, total xylenes (BTEX), and total petroleum hydrocarbons (TPH). During the sampling event shallow groundwater was measured at depths ranging from approximately 12 feet to 22 feet bgs. It was reported that the analytical results for this monitoring event were consistent with the results from previous monitoring events except for benzene, which was detected at 0.28 micrograms per liter (µg/L) and 1.4 µg/L in observation wells OW-1 and OW-3, respectively. In accordance with the approved groundwater monitoring plan, a confirmation sample was collected from observation wells OW-1 and OW-3 on July 12, 2011. The results of the July 2011 sampling event indicated BTEX compounds were not detected above the laboratory detection limit. According to the groundwater monitoring plan, if BTEX compounds are not detected in confirmation samples, then the BTEX compounds are to be considered as "non-detected" for the sampling event. The APEX letter report indicated the next semi-annual groundwater monitoring event was scheduled for December 2011. At the time of this report, the analytical results from the December 2011 sampling event were not available for review.

Conclusions and Recommendations

LTE identified no obvious evidence of significant spills, releases, or other on-site surface activities that may result in impacts to shallow groundwater quality. LTE did observe obvious

evidence of stained concrete within the secondary containment and the asphalt of the truck unloading area. The semi annul groundwater monitoring program provides continued surveillance for shallow groundwater impacts.

Based on our observations, LTE recommends areas of obvious stained areas of concrete and asphalt be cleaned with a waterless cleaning product.

Limitations

No investigation is infallible. Some uncertainty will always exist concerning the presence or absence of potential contaminants at a particular property, irrespective of the rigor of the investigation. Accordingly, LTE does not warrant that contaminants, other than those identified in this report, do not exist at the subject property or may not exist there in the future.

LTE believes that it has performed the services summarized in this report in a manner consistent with the level of care and skill ordinarily exercised by members of the environmental profession practicing at the same time and under similar conditions in the area of the project. Areas of the site were covered with snow on December 28, 2011, which limited full observation of the ground surface for spills or releases.

Sincerely,

LT ENVIRONMENTAL, INC.

Nick Talocco, P.E.
Environmental Staff Engineer

Attachments:
Attachment 1 – Site Photographs
Attachment 2 – Weld County Department of Public Health and Environment Wattenberg Injection Well, 2nd Semi-annual Inspection 2011
Attachment 3 – Apex Consulting Services, Inc. June 2011 Groundwater Monitoring, Wattenberg Facility, Weld County, Colorado

ATTACHMENT 1

SITE PHOTOGRAPHS

Wattenberg Disposal Facility
Site Photographs

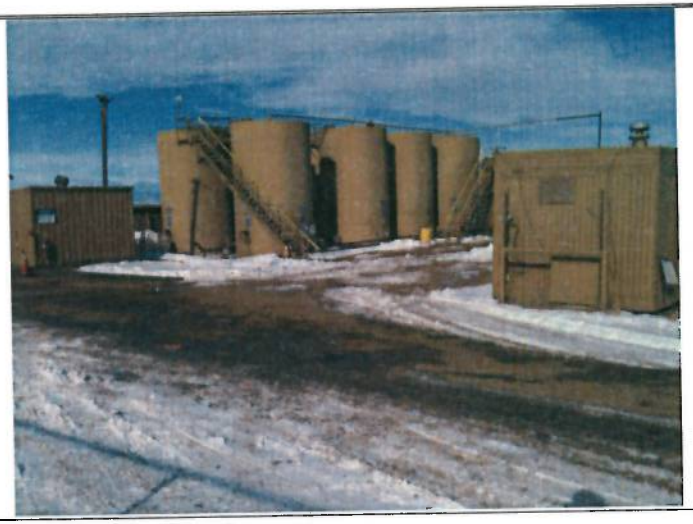


Photo 1 – Site Facility Layout.

Photo 2 – Staining adjacent to southeast most 400 bbl tank.

Photo 3 – Staining adjacent to 400 bbl and 500 bbl tanks.

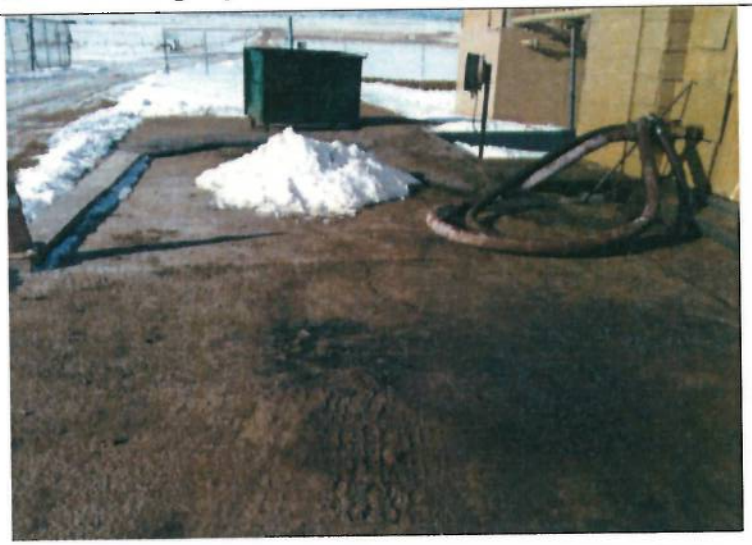


Photo 4 – Staining adjacent to truck unloading area.

Notes: bbl - Barrel

ATTACHMENT 2

WELD COUNTY DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT
WATTENBERG INJECTION WELL 2ND SEMI-ANNUAL INSPECTION 2011

1861-2011 150 WELD COUNTY

DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT
1555 N. 17th Avenue
Greeley, CO 80631

Public Health

Web: http://www.co.weld.co.us/departments/healthenvironment/

Health Administration
Vital Records
Tele: 970.304.6410
Fax: 970.304.6412

Public Health & Clinical Services
Tele: 970.304.6420
Fax: 970.304.6416

Environmental Health Services
Tele: 970.304.6415
Fax: 970.304.6411

Communication, Education & Planning
Tele: 970.304.6470
Fax: 970.304.6452

Emergency Preparedness & Response
Tele: 970.304.6420
Fax: 970.304.6469

Our vision: *Together with the communities we serve, we are working to make Weld County the healthiest place to live, learn, work and play*

October 20, 2011

K.P. Kauffman Company, Inc.
Attn: Roy Teter
1675 Broadway, Suite 2800
Denver, CO 80202-4628

Subject: K.P. Kauffman Company, Inc. Wattenberg Injection Well, 2nd Semi-annual Inspection 2011

Dear Mr. Teter:

On October 14, 2011, the Weld County Dept. of Public Health and Environment conducted a routine inspection of the K.P. Kauffman Company, Inc. Wattenberg injection well disposal facility, located at 4468 Weld County Road 19, Weld County, Colorado. The purpose of the inspection was to assess the facility's compliance with Use by Special Review Permit Number 1039 (USR-1039) and applicable Weld County Code.

Based on the inspection, the facility is in compliance. A copy of the inspection checklist is attached. If you have any questions regarding this inspection, please contact me at 304-6415, extension 2219.

Sincerely,

Troy E. Swain
Waste Program Coordinator
Environmental Health Services

cc: Jerry Henderson, CDPHE-HMWMD

OCT 25 2011

BY: .....

INJECTION WELL INSPECTION REPORT CHECKLIST

FACILITY OWNER/OPERATOR: KP Kaufman Company Inc. – Wattenberg Disposal LLC.

FACILITY NAME: KPK Wattenberg Disposal (Sukta Farm) FACILITY ID: CO 1516-2115 (EPA UIC PERMIT #) USR: 1039

DATE: 10-14-2011 INSPECTION: Q (SA) WELL CLASS: (I) II

CONTACT PERSON: Roy Teter PHONE: KP Kaufman Co. Inc. World TRADE Center 1675 Broadway Ste 1970 Denver CO 80202 303-833-5670 303-833-3285 (fax)

ADDRESS: 10137 WCR 19 Ft. Lupton CO 80621

FACILITY LOCATION: 4468 WCR 19

TRUCK DELIVERIES/DAY- 8 Ave BARRELS INJECTED/DAY- 800 BBLS

INJECTION PRESSURE: 550 psi (LIMIT psi).

SOLIDS/SEDIMENT DISPOSAL NAME: CSI

PETROLEUM CONTAMINATED SOILS: None ON-SITE STORAGE: Y (N)

CONDITION OF CONCRETE RECEIVING PAD: OK

LEAK DETECTION SYSTEM MONITORING: Y / N N/A FREQ/RECORDS: N/A

GROUNDWATER MONITORING WELL CONDITION: REPORTS: Y/N

CHEMICALS STORED: (Y) / N EMERGENCY RELEASES: Y / (N) ISDS: (Y) / N

ENVIRONMENTAL SPECIALIST: Troy Swain

PERSONS PRESENT AT TIME OF INSPECTION: Bill Dean 10-14-2011

CURRENT CONDITIONS/COMMENTS:

Totalizer = 170067 BBLS.

Inj @ 550 ps. @ ≈ 1563 BPD Rate

Annular Press P ≈ 100 + psi (100-200) ≈100 cont. not running all time – OK

ATTACHMENT 3

APEX CONSULTING SERVICES, INC. JUNE 2011 GROUNDWATER MONITORING, WATTENBERG FACILITY, WELD COUNTY, COLORADO

APEX CONSULTING SERVICES, INC.

APEX

566 West Willow Court
Reply to: P.O. Box 369
Louisville, CO 80027-0369
Phone: 303-665-1400
Fax: 303-665-0620
email: apexcsi@comcast.net

August 2, 2011

Mr. Ray Gorka
K.P. Kauffman Company, Inc.
World Trade Center
1675 Broadway, Suite 2800
Denver, CO 80202-4825

Re: June 2011, Groundwater Monitoring, Wattenberg Disposal Facility, Weld County, Colorado

Dear Mr. Gorka:

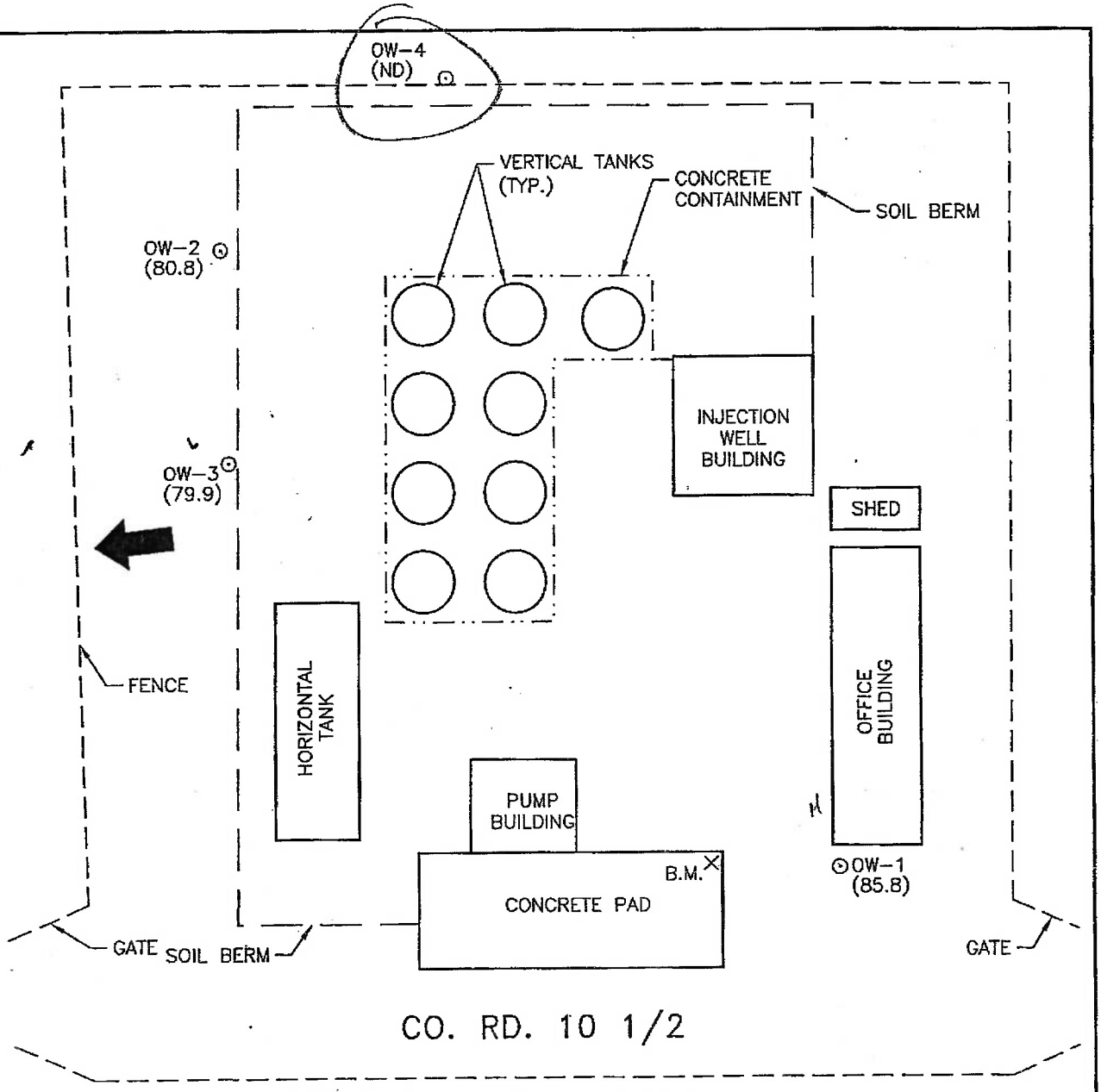
Apex Consulting Services, Inc. (APEX) has completed the June 2011 (semi-annual) groundwater monitoring at the Wattenberg Disposal Facility (Facility) in Weld County, Colorado (Figure 1). This letter report presents a summary of the work performed, the results of the groundwater analysis, and our conclusions.

BACKGROUND

The Facility was originally constructed in 1972 by the Amoco Production Company to dispose of production water from oil and gas wells in the D-J Basin. Wright's Disposal, Inc. purchased the Facility from Amoco in June 1989 and K.P. Kaufman Company, Inc. (KPK) purchased the Facility in June 1998. KPK currently operates the Facility for deep injection disposal of non-hazardous Class I and Class II liquid waste as defined in 40 CFR 144.6. The Facility is operated under the U.S. EPA Underground Injection Control Program, Final Permit No. CO 1516-2115. Three groundwater observation wells (OW-1, OW-2, and OW-3) are located around the periphery of the Facility to monitor groundwater flow direction, gradient, and quality. A groundwater monitoring plan was prepared by Nationwide Environmental Services, Inc. on January 3, 2002. The monitoring plan was subsequently approved by the Solid Waste Unit of the Colorado Department of Public Health and Environment. The monitoring plan included semi-annual groundwater monitoring (OW-1, OW-2, and OW-3) for major cations (calcium, magnesium, potassium, and sodium), major anions (bicarbonate, carbonate, chloride, nitrate, nitrite, and sulfate), Total Organic Carbon (TOC), benzene, toluene, ethylbenzene, and total xylenes (BTEX), and Total Petroleum Hydrocarbons (TPH). During the January 2007 sampling event, product was encountered on the groundwater in observation well OW-3. Contaminated soils in the vicinity of observation well OW-3 were excavated and replaced with clean fill. Observation well OW-3 was removed during the excavation of the contaminated soils. Following the removal of the contaminated soil, a new observation well (OW-3) was installed at the previous location. At the request of the Colorado Department of Public Health and Environment, an additional observation well (OW-4) was installed to the north of the Facility in June 2009. Observation well OW-4 was added to the groundwater monitoring plan.

GROUNDWATER SAMPLING

Groundwater samples were collected for laboratory analyses from observation wells OW-1, OW-2 and OW-3 on June 21, 2011. Prior to groundwater sampling, groundwater elevations were measured and recorded in each of the aforementioned observation wells and soil boring (monitoring wells) located at the Property. A second groundwater sample was collected for laboratory analyses from observation wells OW-1 and OW-3 on July 12, 2011. The locations of the observation and monitoring wells are illustrated on Figure 2. Each of the wells was surveyed to a local datum. Shallow groundwater was present in the wells at depths ranging from approximately 13 to 22 feet below the ground surface (bgs). Relative groundwater elevations and the groundwater flow direction are shown on Figure 2. Free product was not present on the groundwater in any of the wells. The observation wells were prepared for sampling by purging three wet well volumes of groundwater from each well with a dedicated bailer. During purging of each observation well, pH, specific conductance, and temperature were measured. The



NOTE: DATA COLLECTED ON JUNE 21, 2011.

$\frac{\Delta h}{\Delta h_2}\frac{(L)}{(H\text{-}L)} = \frac{0.5}{5.9}\frac{(26')}{(80.7)}$

LEGEND:

⊙ OW-2 (80.8)	OBSERVATION WELL, NUMBER, AND RELATIVE GROUNDWATER ELEVATION
	CURRENT GROUNDWATER FLOW DIRECTION
B.M.	BENCH MARK, ELEVATION 100.00 FEET
ND	NO DATA

NORTH

0 30 60

SCALE: 1" = 60'

APEX JOB: 1-0025.001.00

WATTENBERG DISPOSAL FACILITY
SITE MAP
JUNE 21, 2011

APEX

FIGURE:
2

C:\MDS WORK FILES\files\01-054\SITEMAP-WATTENBERG_06-11

APEX CONSULTING SERVICES, INC.

APEX

566 West Willow Court
Reply to: P.O. Box 369
Louisville, CO 80027-0369
Phone: 303-665-1400
Fax: 303-665-0620
email: apexcsi@comcast.net

January 30, 2012

Mr. Kent Gilbert
K.P. Kauffman Company, Inc.
World Trade Center
1675 Broadway, Suite 2800
Denver, CO 80202-4825

Re: December 2011, Groundwater Monitoring, Wattenberg Disposal Facility, Weld County, Colorado

Dear Mr. Gilbert:

Apex Consulting Services, Inc. (APEX) has completed the December 2011 (semi-annual) groundwater monitoring at the Wattenberg Disposal Facility (Facility) in Weld County, Colorado (Figure 1). This letter report presents a summary of the work performed, the results of the groundwater analysis, and our conclusions.

BACKGROUND

The Facility was originally constructed in 1972 by the Amoco Production Company to dispose of production water from oil and gas wells in the D-J Basin. Wright's Disposal, Inc. purchased the Facility from Amoco in June 1989 and K.P. Kaufman Company, Inc. (KPK) purchased the Facility in June 1998. KPK currently operates the Facility for deep injection disposal of non-hazardous Class I and Class II liquid waste as defined in 40 CFR 144.6. The Facility is operated under the U.S. EPA Underground Injection Control Program, Final Permit No. CO 1516-2115. Three groundwater observation wells (OW-1, OW-2, and OW-3) are located around the periphery of the Facility to monitor groundwater flow direction, gradient, and quality. A groundwater monitoring plan was prepared by Nationwide Environmental Services, Inc. on January 3, 2002. The monitoring plan was subsequently approved by the Solid Waste Unit of the Colorado Department of Public Health and Environment. The monitoring plan included semi-annual groundwater monitoring (OW-1, OW-2, and OW-3) for major cations (calcium, magnesium, potassium, and sodium), major anions (bicarbonate, carbonate, chloride, nitrate, nitrite, and sulfate), Total Organic Carbon (TOC), benzene, toluene, ethylbenzene, and total xylenes (BTEX), and Total Petroleum Hydrocarbons (TPH). During the January 2007 sampling event, product was encountered on the groundwater in observation well OW-3. Contaminated soils in the vicinity of observation well OW-3 were excavated and replaced with clean fill. Observation well OW-3 was removed during the excavation of the contaminated soils. Following the removal of the contaminated soil, a new observation well (OW-3) was installed at the previous location. At the request of the Colorado Department of Public Health and Environment, an additional observation well (OW-4) was installed to the north of the Facility in June 2009.

GROUNDWATER SAMPLING

Groundwater samples were collected for laboratory analyses from observation wells OW-1, OW-2, OW-3 and OW-4 on December 21, 2011. A second groundwater sample was collected for laboratory analyses from observation wells OW-1, OW-2 and OW-3 on January 13, 2011. Prior to groundwater sampling, groundwater elevations were measured and recorded in each of the aforementioned observation wells located at the Property. The locations of the observation wells are illustrated on Figure 2. Each of the wells was surveyed to a local datum. Shallow groundwater was present in the wells at depths ranging from approximately 15 (OW-1) to 24 (OW-4) feet below the ground surface (bgs). Relative groundwater elevations are shown on Figure 2. Groundwater flow direction was determined to be to the west for this monitoring period. Free product was not present on the groundwater in any of the wells. The observation wells were prepared for sampling by purging three wet well

volumes of groundwater from each well with a dedicated bailer. During purging of each observation well, pH, specific conductance, and temperature were measured. The probes were calibrated before (within 2 hours) taking the measurements. Specific conductance was measured using equivalent EPA standard method 9050. Temperature and pH were measured using a standard probe equivalent to EPA standard method 9040 or 150.1. Groundwater was sampled from the observation wells with a dedicated bailer when pH, specific conductance, and temperature parameters were stable. The pH, specific conductance, and temperature measurements recorded for each sample are summarized on Tables 1, 2, and 3.

GROUNDWATER LABORATORY ANALYSES

The groundwater samples were handled with clean, new, nitrile gloves and placed in laboratory supplied vials and bottles. The samples and a trip blank (distilled water) were stored on ice in a cooler and delivered to Accutest Laboratories (ACCUTEST) under chain-of-custody documentation. The groundwater samples collected from the observation wells were analyzed for calcium, magnesium, potassium, sodium, chloride, nitrate, nitrite, sulfate, TOC, bicarbonate, carbonate, BTEX, and TPH. Laboratory results are summarized on Tables 1, 2, and 3. Laboratory reports provided by ACCUTEST are included in Attachment I.

CONCLUSIONS

Groundwater samples were collected for laboratory analysis from the observation wells OW-1, OW-2, OW-3 and OW-4 on December 21, 2011. The analytical results for this monitoring event are consistent with the results from previous monitoring events except for benzene. Benzene was detected at respective concentrations of 1.0, 0.25 (estimated) and 1.3 ug/L in the samples collected from observation wells OW-1, OW-2 and OW-3. In accordance with the approved groundwater monitoring plan, a confirmatory sample was collected from this well on July 27, 2006. A second groundwater sample was collected for laboratory analyses from observation wells OW-1, OW-2 and OW-3 on January 13, 2011. BTEX compounds were not detected above the method detection limits in the confirmatory sample. According to the groundwater monitoring plan, if BTEX compounds are not detected in the confirmatory sample, then the BTEX compounds are to be considered as "non-detected" for the sampling event. Consequently, semi-annual groundwater monitoring will continue at the Facility. Shallow groundwater was present in the observation and monitoring wells at depths ranging from approximately15 to 24 feet bgs. The analytical results for this monitoring event are consistent with the results from previous monitoring events.

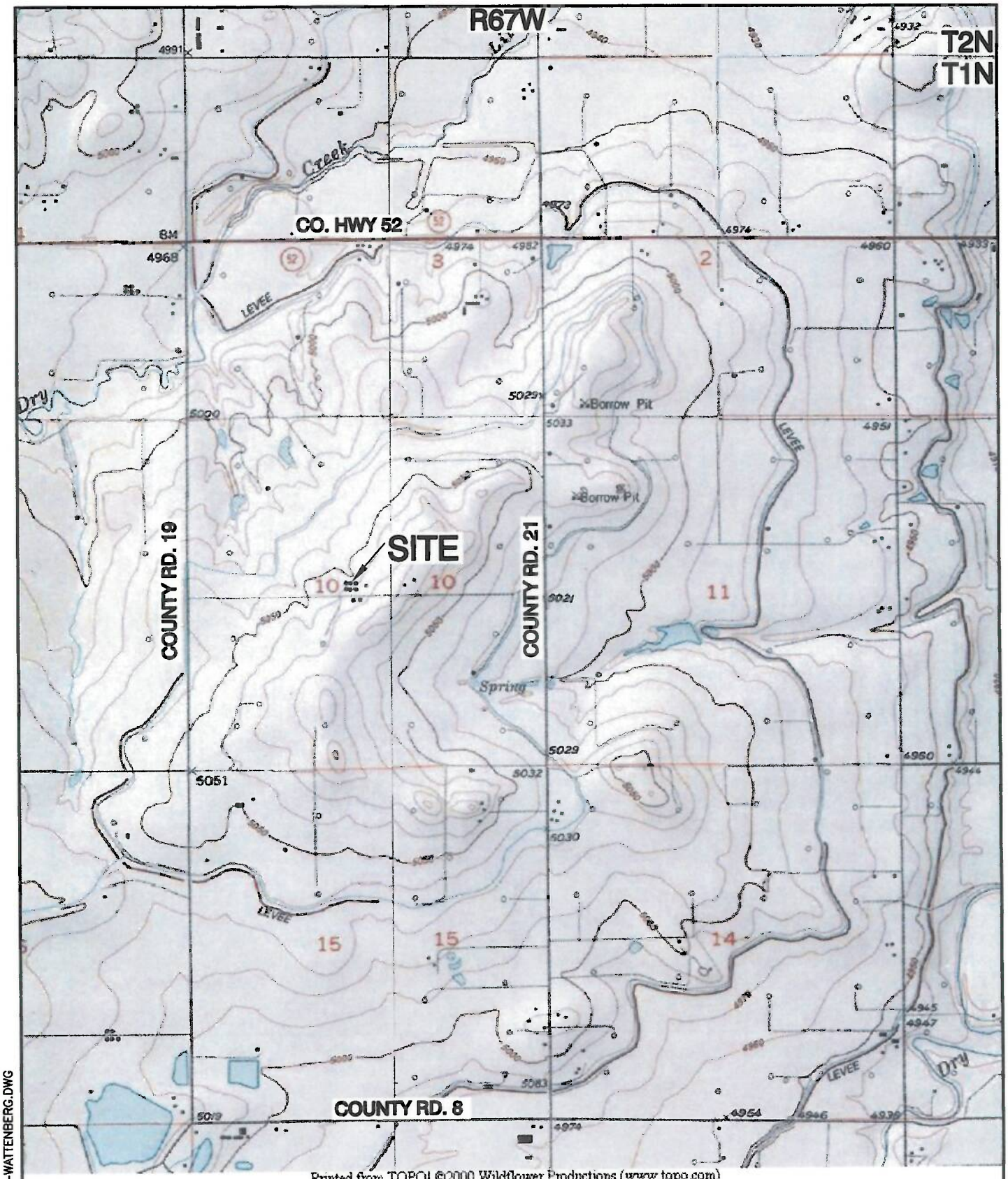
The next semi-annual groundwater monitoring event is scheduled for June 2012. Following the conclusion of the next semi-annual groundwater monitoring event, the data will be evaluated to determine if there is a significant change in groundwater elevation and/or quality.

If you have any questions or comments, please call.

Sincerely,

APEX CONSULTING SERVICES, INC.

Michael D. Hattel, P.G., P.E.S.
Principal
MDH:mh
Attachments
C:\Apex\KPK\Wattenberg\Rpts\KPK.GW.RPT.1211.rtf



Printed from TOPO! ©2000 Wildflower Productions (www.topo.com)

APEX JOB: 1-0025.001.00

NORTH

0 1000 2000

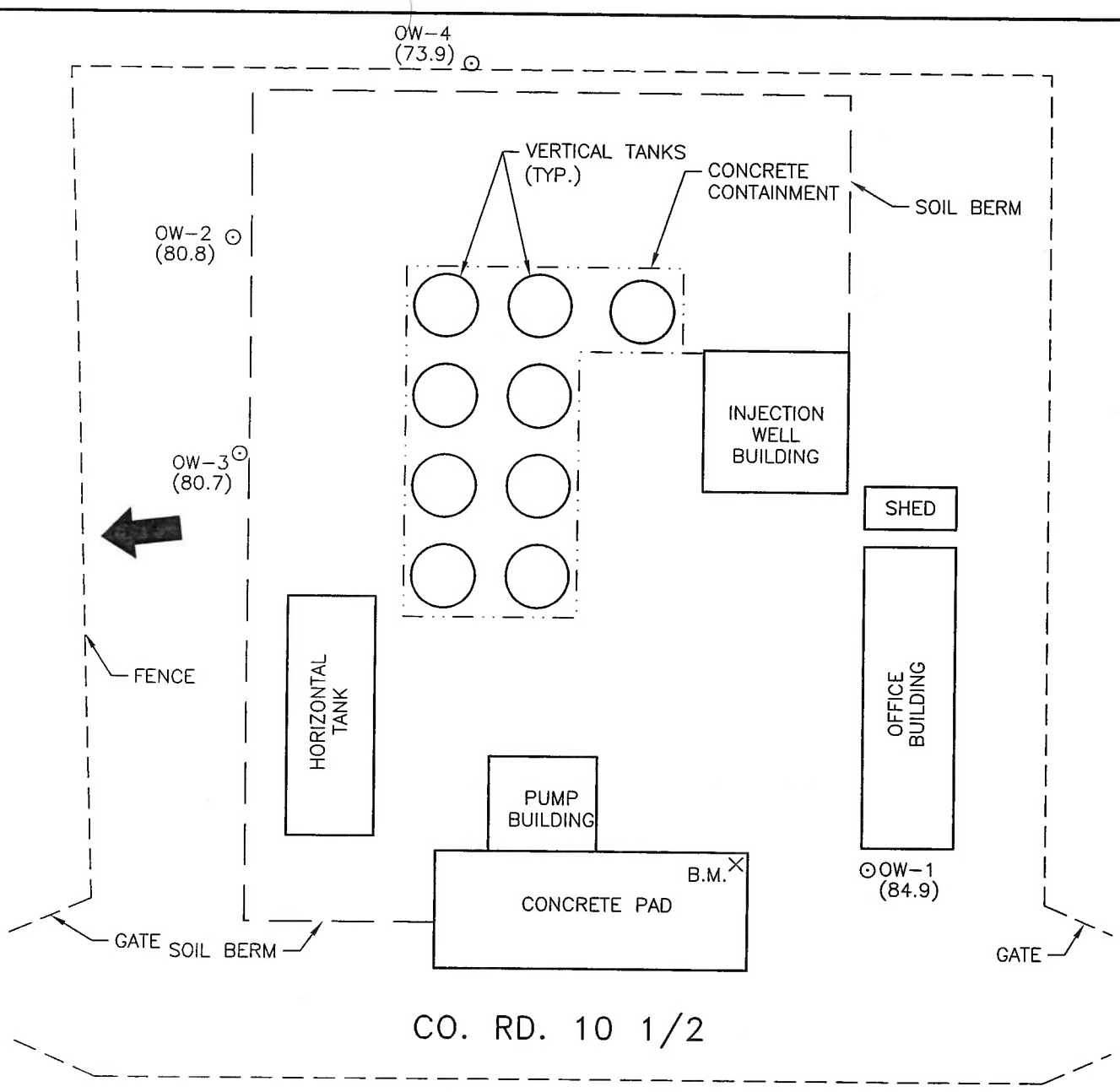
SCALE: 1" = 2000'

WATTENBERG DISPOSAL FACILITY
VICINITY MAP

APEX

FIGURE:
1

MDS FILE: 01-054\VICINITY-WATTENBERG.DWG



NOTE: DATA COLLECTED ON DECDEMBER 21, 2011.

LEGEND:

⊙ OW-2 (80.8)	OBSERVATION WELL, NUMBER, AND RELATIVE GROUNDWATER ELEVATION
➡	CURRENT GROUNDWATER FLOW DIRECTION
B.M.	BENCH MARK, ELEVATION 100.00 FEET
ND	NO DATA

NORTH

0 30 60

SCALE: 1" = 60'

APEX JOB: 1-0025.001.00

WATTENBERG DISPOSAL FACILITY
SITE MAP
DECEMBER 21, 2011

APEX

FIGURE:
2

C:\MDS WORK FILES\files\01-054\SITEMAP-WATTENBERG_12-11

TABLE 1

Summary of BTEX[1], TPH[2] and TOC[3] Analytical Results for Groundwater Samples Collected from Wattenberg Disposal Facility, Weld County, Colorado

Sample	Date	pH	Temperature (Celsius)	Specific Conductance[3]	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Xylenes (ug/L)	TPH (mg/L)	TOC[4] (mg/L)
OW-1	9/18/02	6.46	17.5	>4000	<.15	<.18	<.24	<.63	<1.6	79.00
	12/16/02	6.54	14.9	>4000	<.15	<.18	<.24	<.63	<1.6	29
	6/30/03	6.64	13.2	>4000	<1.5	<.18	<.24	<.63	<1.6	250
	12/30/03	6.54	14.1	>4000	<.15	<.18	<.24	<.63	<1.6	86
	6/30/04	6.19	13.2	>4000	<.18	<.21	<.17	<.96	<1.5	28
	12/29/04	6.30	12.9	>4000	<.18	<.21	<.17	<.96	<1.6	33
	6/30/05	6.60	13.2	>4000	<.074	<.078	<.088	<.20	<1.5	27
	12/28/05	6.85	15.5	>4000	<.074	<.078	<.088	<.20	<1.5	27
	6/29/06	6.54	13.5	>4000	1.0	<.078	1.1	5.0	<1.5	140
	7/27/06[5]	6.51	13.6	>4000	<.074	<.078	<.088	<.20	NA	NA
	1/25/07	6.81	13.3	>4000	<1.0	<2.0	<2.0	<4.0	5.3	28.7
	7/2/07	6.59	12.9	>4000	<1.0	<2.0	<2.0	<4.0	15.0	30.0
	1/31/08	6.69	12.9	>4000	<1.0	<2.0	<2.0	<4.0	<5.0	30.3
	6/24/08	6.52	12.3	>4000	<1.0	<2.0	<2.0	<4.0	<5.0	31.4
	12/29/08	6.50	14.7	>4000	<1.0	<2.0	<2.0	<4.0	6.2	30.1
	6/29/09	6.52	14.9	>4000	<1.0	<2.0	<2.0	<4.0	<5.0	30.8
	12/15/09	6.51	13.3	>4000	<1.0	<2.0	<2.0	<4.0	5.9	30.6
	6/23/10	6.61	12.4	>4000	<1.0	<2.0	<2.0	<4.0	5.0	31.8
	12/13/10	6.80	14.6	>4000	<1.0	<2.0	<2.0	<4.0	<5.0	31.7
	6/21/11	6.62	12.3	>4000	0.28J	<1.0	<1.0	<2.0	7.1	29.2
	7/12/11	6.58	12.4	>4000	<1.0	<2.0	<2.0	<2.0	NA	NA
	12/21/11	6.56	13.8	>4000	1.0	<2.0	<2.0	<2.0	10.3	34.5
	1/13/12	6.55	14.0	>4000	<1.0	<2.0	<2.0	<2.0	NA	NA
OW-2	9/18/02	7.05	14.8	>4000	<.15	<.18	<.24	<.63	<1.6	230
	12/16/02	7.09	14.0	>4000	<.15	<.18	<.24	<.63	<1.6	60
	6/30/03	7.28	12.9	>4000	<.15	<.18	<.24	<.63	<1.7	150
	12/30/03	7.23	13.3	>4000	<.15	<.18	<.24	<.63	<1.7	58
	6/30/04	6.86	13.0	>4000	<.18	<.21	<.17	<.96	<1.5	37
	12/29/04	6.80	12.3	>4000	<.18	<.21	<.17	<.96	<1.4	54
	6/30/05	7.18	12.5	>4000	<.074	<.078	<.088	<.20	<1.5	48
	12/28/05	7.23	14.5	>4000	<.074	<.078	<.088	<.20	<1.5	48
	6/29/06	7.22	12.9	>4000	<.074	<.078	<.088	<.20	<1.5	59

TABLE 1 (continued)

Summary of BTEX[1], TPH[2] and TOC[3] Analytical Results for Groundwater Samples Collected from Wattenberg Disposal Facility, Weld County, Colorado

Sample	Date	pH	Temperature (Celsius)	Specific Conductance[3]	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Xylenes (ug/L)	TPH (mg/L)	TOC[4] (mg/L)
OW-2	1/25/07	7.37	12.8	>4000	<1.0	<2.0	<2.0	<4.0	<5.0	44.4
(Cont)	7/2/07	7.18	13.3	>4000	<1.0	<2.0	<2.0	<4.0	<5.0	36.7
	1/31/08	7.27	12.6	>4000	<1.0	<2.0	<2.0	<4.0	<5.0	43
	6/24/08	7.18	12.1	>4000	<1.0	<2.0	<2.0	<4.0	<5.0	47.1
	12/29/08	7.13	14.0	>4000	<1.0	<2.0	<2.0	<4.0	<4.0	45.4
	6/29/09	7.15	14.2	>4000	<1.0	<2.0	<2.0	<4.0	5.7	43.9
	12/15/09	7.11	13.0	>4000	<1.0	<2.0	<2.0	<4.0	<5.0	43.1
	6/23/10	7.30	12.4	>4000	<1.0	<2.0	<2.0	<4.0	<5.0	43.5
	12/13/10	7.14	13.6	>4000	<1.0	<2.0	<2.0	<4.0	<5.0	44.5
	6/21/11	7.19	12.5	>4000	<0.2	<1.0	<1.0	<2.0	4.9	37.2
	12/21/11	7.21	12.5	>4000	0.25J	<2.0	<2.0	<2.0	12.8	46.4
	1/13/12	7.20	13.0	>4000	<1.0	<2.0	<2.0	<2.0	NA	NA
OW-3	9/18/02	6.88	15.4	>4000	<.15	<.18	<.24	<.63	<5.1	95
	12/16/02	7.08	15.3	>4000	<.15	<.18	<.24	<.63	<1.6	63
	6/30/03	7.05	14.6	>4000	<.15	<.18	<.24	<.63	<1.6	200
	12/30/03	7.27	13.4	>4000	<.15	<.18	<.24	<.63	<1.8	85
	6/30/04	6.89	12.4	>4000	3.5	1.3	<.17	<.96	<2.0	68
	9/9/04[5]	6.86	13.5	>4000	<.18	<.17	<.17	<.96	NA	NA
	12/29/04	6.65	12.3	>4000	<.18	<.21	<.17	<.96	<1.5	78
	6/30/05	6.90	12.5	>4000	<.074	<.078	<.088	<.20	<1.6	80
	12/28/05	7.12	15.2	>4000	<.074	<.078	<.088	<.20	<1.5	92
	6/29/06	7.59	15.8	>4000	<.074	<.078	<.088	<.20	<1.5	82
	1/25/07	7.47	12.7	>4000	<1.0	<2.0	<2.0	<4.0	<5.0	62.9
	7/2/07	6.90	13.7	>4000	1500	71000	19000	178000	NA	NA
	1/31/08	NS	NS	NS	NS	NS	NS	NS	NS	NS
	6/24/08	NS	NS	NS	NS	NS	NS	NS	NS	NS
	1/05/09	7.05	14.0	>4000	<1.0	<2.0	<2.0	<4.0	<5.0	53
	6/29/09	7.15	14.1	>4000	1.0	<2.0	<2.0	<4.0	5.0	43.5
	7/27/09	7.11	14.2	>4000	NA	NA	NA	NA	NA	NA
	12/15/09	7.17	13.0	>4000	1.6	<2.0	<2.0	<4.0	<6.33	46.4
	1/04/10	7.15	13.2	>4000	<1.0	<2.0	<2.0	<4.0	NA	NA

TABLE 1 (continued)

Summary of BTEX[1], TPH[2] and TOC[3] Analytical Results for Groundwater Samples Collected from Wattenberg Disposal Facility, Weld County, Colorado

Sample	Date	pH	Temperature (Celsius)	Specific Conductance[3]	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Xylenes (ug/L)	TPH (mg/L)	TOC[4] (mg/L)
OW-3	6/23/10	7.35	12.3	>4000	<1.0	<2.0	<2.0	<4.0	<13.0	44.8
(Cont)	12/13/10	7.05	13.2	>4000	<1.0	<2.0	<2.0	<4.0	7.6	45.0
	6/21/11	7.19	12.3	>4000	1.4	<1.0	<1.0	<2.0	<6.2	40.1
	7/12/11	7.15	12.4	>4000	<1.0	<1.0	<1.0	<1.0	NA	NA
	12/21/11	7.20	12.0	>4000	1.3	<2.0	<2.0	<2.0	7.3	45.9
	1/13/12	7.15	11.9	>4000	<1.0	<2.0	<2.0	<2.0	NA	NA
OW-4	12/15/09	7.14	12.9	>4000	<1.0	<2.0	<2.0	<4.0	NA	68.9
	6/23/10	7.17	13.5	>4000	<1.0	<2.0	<2.0	<4.0	<7.4	78.4
	12/13/10	7.18	13.1	>4000	<1.0	<2.0	<2.0	<4.0	<11	69.9
	6/21/11	7.23	12.2	>4000	<0.2	<1.0	<1.0	<2.0	<6.4	68.1
	12/21/11	7.12	11.7	>4000	<0.2	<2.0	<2.0	<2.0	8.1	73.8

1 Benzene, toluene, ethylbenzene, and total xylenes by Method 8021B.
2 Total petroleum hydrocarbons by Method 1664.
3 Specific conductance in micro-siemens at 25 degrees Celsius.
4 Total organic carbon by Method 415.1.
5 Second sample collected in accordance with ground water monitoring plan.

J Estimated value.
mg/L milligrams per liter.
NA Not Analyzed
ug/L micrograms per liter.
NS No Sample

TABLE 2

Summary of Major Cation[1] Analytical Results for Groundwater Samples Collected from Wattenberg Disposal Facility, Weld County, Colorado

Sample	Date	pH	Temperature (Celsius)	Specific Conductance[2]	Calcium (mg/L)	Magnesium (mg/L)	Potassium (mg/L)	Sodium (mg/L)
OW-1	9/18/02	6.46	17.5	>4000	330	310	11	2300
	12/16/02	6.54	14.9	>4000	370	320	15	2500
	6/30/03	6.64	13.2	>4000	370	350	12	2600
	12/30/03	6.54	14.1	>4000	500	340	12	2600
	6/30/04	6.19	13.2	>4000	300	300	11	2000
	12/29/04	6.30	12.9	>4000	420	360	14	2600
	6/30/05	6.73	13.2	>4000	410	370	12	2500
	12/28/05	6.85	15.5	>4000	420	380	18	2700
	6/29/06	6.54	13.5	>4000	440	410	26	2700
	1/25/07	6.81	13.3	>4000	380	350	14	2300
	7/2/07	6.59	12.9	>4000	450	400	21	2700
	1/31/08	6.69	12.9	>4000	460	420	14	2900B
	6/24/08	6.52	12.3	>4000	410	380	11	2800
	12/29/08	6.50	14.7	>4000	460	420	12	2700
	6/29/09	6.52	14.9	>4000	440	410	11	2800
	12/15/09	6.51	13.3	>4000	470	470	15	2400
	6/23/10	6.61	12.4	>4000	554	501	<50	2810
	12/13/10	6.80	14.6	>4000	472	450	13	2540
	6/21/11	6.62	12.3	>4000	457	415	11.7	2400
	12/21/11	6.56	13.8	>4000	427	407	11.9	2530
OW-2	9/18/02	7.05	14.8	>4000	600	680	18	3800
	12/16/02	7.09	14.0	>4000	690	700	23	3700
	6/30/03	7.28	12.9	>4000	600	660	21	4200
	12/30/03	7.23	13.3	>4000	770	640	21	4300
	6/30/04	6.86	13.0	>4000	480	610	18	3500
	12/29/04	6.80	12.3	>4000	600	630	19	4000
	6/30/05	7.18	12.5	>4000	640	670	19	3800
	12/28/05	7.23	14.5	>4000	550	640	22	4000
	6/29/06	7.22	12.9	>4000	580	670	24	4700

TABLE 2 (continued)

Summary of Major Cation[1] Analytical Results for Groundwater Samples Collected from Wattenberg Disposal Facility, Weld County, Colorado

Sample	Date	pH	Temperature (Celsius)	Specific Conductance[2]	Calcium (mg/L)	Magnesium (mg/L)	Potassium (mg/L)	Sodium (mg/L)
OW-2	1/25/07	7.37	12.8	>4000	550	620	25	3600
(Cont.)	7/2/07	7.18	13.3	>4000	620	660	38	4300
	1/31/08	7.27	12.6	>4000	600	640	20	4100B
	6/24/08	7.18	12.1	>4000	530	580	18	4000
	12/29/08	7.13	14.0	>4000	570	630	19	4100
	6/29/09	7.15	14.2	>4000	510	560	17	4000
	12/15/0	7.11	13.0	>4000	560	670	22	3300
	6/23/10	7.30	12.4	>4000	648	698	<50	4000
	12/13/10	7.14	13.6	>4000	573	669	17.7	3730
	6/21/11	7.19	12.5	>4000	536	606	17.3	3470
	12/21/11	7.21	12.5	>4000	568	682	19.9	4050
OW-3	9/18/02	6.88	15.4	>4000	480	690	16	3900
	12/16/02	7.08	15.3	>4000	530	720	20	4100
	6/30/03	7.13	14.6	>4000	490	670	17	4200
	12/30/03	7.27	13.4	>4000	640	650	17	4300
	6/30/04	6.89	12.4	>4000	490	610	18	3500
	12/29/04	6.65	12.3	>4000	530	660	18	4100
	6/30/05	6.90	12.5	>4000	530	710	18	4100
	12/28/05	7.12	15.2	>4000	520	730	20	4200
	6/29/06	7.29	15.8	>4000	510	730	22	4400
	1/25/07	7.47	12.7	>4000	510	640	24	3700
	7/2/07	6.90	13.7	>4000	NA	NA	NA	NA
	1/31/08	NS	NS	NS	NS	NS	NS	NS
	6/24/08	NS	NS	NS	NS	NS	NS	NS
	1/05/09	7.05	14.0	>4000	500	630	20	4400
	6/29/09	7.15	14.1	>4000	520	570	17	4200
	12/15/09	7.17	13.0	>4000	460	630	26	3900
	6/23/10	7.35	12.3	>4000	564	695	<50	4310
	12/13/10	7.05	13.2	>4000	512	639	18.9	4030

TABLE 3

Summary of Major Anion Analytical Results for Groundwater Samples Collected from Wattenberg Disposal Facility, Weld County, Colorado

Sample	Date	pH	Temperature (Celsius)	Specific Conductance[1]	Bicarbonate (mg/L)	Carbonate (mg/L)	Nitrate as N[3] (mg/L)	Nitrite as N[3] (mg/L)	Sulfate[3] (mg/L)	Chloride[3] (mg/L)
OW-1	9/18/02	6.46	17.5	>4000	890	<1	<.36	<.34	2500	3300
	12/16/02	6.54	14.9	>4000	880	<1	<1.4	<1.3	2400	3800
	6/303/03	6.64	13.2	>4000	NS	NS	<1.8	<2.5	1900	3400
	12/30/03	6.54	14.1	>4000	880	<1.2	<0.01	<0.02	2300	1000
	6/30/04	6.19	13.2	>4000	780	<1.2	<0.02	<0.02	2100	3800
	12/29/04	6.30	12.9	>4000	840	<3.4	<0.07	<0.04	2100	3400
	6/30/05	6.73	13.2	>4000	850	<1.2	<0.02	<0.02	2400	3900
	12/28/05	6.85	15.5	>4000	860	<1.2	<0.02	<0.02	2600	4500
	6/29/06	6.54	13.5	>4000	850	<1.2	<0.02	<0.02	2700	4800
	1/25/07	6.81	13.3	>4000	1000	<5.0	<0.56	<0.76	2030	3880
	7/2/07	6.59	12.9	>4000	976	<5.0	<0.10	<0.40	1970	3940
	1/31/08	6.69	12.9	>4000	977	<5.0	<0.25	<0.40	1870	4210
	6/24/08	6.52	12.3	>4000	936	<5.0	<2.3	<6.1	1830	4400
	12/29/08	6.50	14.7	>4000	754	<5.0	<.45	<15	1730	9070
	6/29/09	6.52	14.9	>4000	763	<5.0	<.90	<3.1	1690	4690
	12/15/09	6.51	13.3	>4000	742	<5.0	<1.5	<1.5	1640	4880
	6/23/10	6.61	12.4	>4000	707	<5.0	<0.90	<6.1	1650	4780
	12/13/10	6.80	14.6	>4000	740	<5.0	<0.90	<15	1740	5080
	6/21/11	6.62	12.3	>4000	705	<5.0	<0.45	<15	1680	4650
	12/21/11	6.56	13.8	>4000	803	<5.0	<0.90	<6.1	1660	4150
OW-2	9/18/02	7.05	14.8	>4000	1100	<1	13	<.84	5200	5300
	12/16/02	7.09	14.0	>4000	1100	<1	5	<1.7	4700	5800
	6/30/03	7.28	12.9	>4000	NS	NS	16	<2.5	5300	4200
	12/30/03	7.23	13.3	>4000	1100	<1.2	16	<0.09	5200	4500
	6/30/04	6.86	13.0	>4000	960	<1.2	16	<0.25	5700	5000
	12/29/04	6.80	12.3	>4000	1000	<3.4	13	<0.04	5000	4300
	6/30/05	7.18	12.5	>4000	1100	<1.2	12	<0.25	5800	4500
	12/28/05	7.23	14.5	>4000	1000	<1.2	14	16	5600	5400
	6/29/06	7.22	12.9	>4000	970	<1.2	9	<0.25	5600	6100
	1/25/07	7.37	12.8	>4000	1210	<5.0	7.1	<1.9	4930	5000

TABLE 3 (continued)

Summary of Major Anion Analytical Results for Groundwater Samples Collected from Wattenberg Disposal Facility, Weld County, Colorado

Sample	Date	pH	Temperature (Celsius)	Specific Conductance[1]	Bicarbonate (mg/L)	Carbonate (mg/L)	Nitrate as N[3] (mg/L)	Nitrite as N[3] (mg/L)	Sulfate[3] (mg/L)	Chloride[3] (mg/L)
OW-2	7/2/07	7.18	13.3	>4000	1190	<5.0	9	<1.0	5270	4790
(cont)	1/31/08	7.27	12.6	>4000	1200	<5.0	6.6	<.40	4640	4500
	6/24/08	7.18	12.1	>4000	1170	<5.0	4.26	<6.1	4400	5200
	12/29/08	7.13	14.0	>4000	950	<5.0	7.8	<15	4830	4940
	6/29/09	7.15	14.2	>4000	931	<5.0	7.2	<6.1	4900	5070
	12/15/09	7.11	13.0	>4000	930	<5.0	12.2	<1.5	6240	4230
	6/23/10	7.30	12.4	>4000	904	<5.0	6.4	<15.0	4960	5160
	12/13/10	7.14	13.6	>4000	930	<5.0	7.9	<15.0	6160	5750
	6/21/11	7.19	12.5	>4000	948	<5.0	5.7	<15.0	4740	4870
	12/21/11	7.21	12.5	>4000	986	<5.0	8.8	<6.1	5270	4740
OW-3	9/18/02	6.88	15.4	>4000	NS	NS	NS	NS	NS	NS
	12/16/02	7.08	15.3	>4000	1100	<1	<1.8	<1.7	8400	3800
	6/30/03	7.13	14.6	>4000	NS	NS	2.0J	<2.5	6100	3800
	12/30/03	7.27	13.4	>4000	1200	<1.2	0.24	<0.09	6300	1200
	6/30/04	6.89	12.4	>4000	920	<1.2	0.20	<0.02	5400	4900
	12/29/04	6.65	12.3	>4000	1100	<3.4	<0.07	<0.07	6700	3200
	6/30/05	6.90	12.5	>4000	1100	<1.2	<0.28	<0.25	8000	3800
	12/28/05	7.12	15.2	>4000	1100	<1.2	6.2	11	6800	3800
	6/29/06	6.54	13.5	>4000	1100	<1.2	2.7	<0.25	680	4800
	1/25/07	7.47	12.7	>4000	1100	<5.0	<1.4	<1.9	5900	4750
	7/2/07	6.9	13.7	>4000	NA	NA	NA	NA	NA	NA
	1/31/08	NS	NS	NS	NS	NS	NS	NS	NS	NS
	6/24/08	NS	NS	NS	NS	NS	NS	NS	NS	NS
	1/05/09	7.05	14.0	>4000	1200	<5.0	4.3	1.9	6100	4390
	6/29/09	7.15	14.1	>4000	919	<5.0	7.4	<6.1	5010	4970
	12/15/09	7.17	13.0	>4000	920	<5.0	6.2	<1.5	4740	5050
	6/23/10	7.35	12.3	>4000	960	<5.0	8.0	<6.1	5960	3920
	12/13/10	7.05	13.2	>4000	960	<5.0	9.5	<15.0	5960	4690
	6/21/11	7.19	12.3	>4000	973	<5.0	4.0	<15.0	5100	3490
	12/21/11	7.20	12.0	>4000	988	<5.0	4.1	<6.1	5620	3650

TABLE 3 (continued)

Summary of Major Anion Analytical Results for Groundwater Samples Collected from Wattenberg Disposal Facility, Weld County, Colorado

Sample	Date	pH	Temperature (Celsius)	Specific Conductance[1]	Bicarbonate (mg/L)	Carbonate (mg/L)	Nitrate as N[3] (mg/L)	Nitrite as N[3] (mg/L)	Sulfate[3] (mg/L)	Chloride[3] (mg/L)
OW-4	12/15/09	7.14	12.9	>4000	276	<5.0	89.3	<1.5	6450	4350
	6/23/10	7.17	13.5	>4000	257	<5.0	80.2	<6.1	6650	3580
	12/13/10	7.18	13.1	>4000	300	<5.0	69.1	<15.0	7880	3840
	6/21/11	7.23	12.2	>4000	262	<5.0	71.0	<15.0	6880	3690
	12/21/11	7.12	11.7	>4000	322	<5.0	69.9	<6.1	7210	3430

1 Specific conductance in micro-siemens at 25 degrees Celsius.
2 By Method 310.1.
3 By Method 300.
J Analyte was detected above the Reporting Limit but below the Quantitation Limit.

mg/L milligrams per liter.
NS No sample.

ATTACHMENT I

Mountain States ACCUTEST LABORATORIES

01/20/12

Technical Report for

K.P. Kauffmann Company, Inc.

Wattenberg GW

Accutest Job Number: D31029

Sampling Date: 01/13/12

Report to:

Apex Consulting Services
PO Box 369
Louisville, CO 80027-0369
kgilbert@kpk.com; mhattel@msn.com

ATTN: Mike Hattel

Total number of pages in report: 15

ACCREDITED IN ACCORDANCE WITH nelac

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Brad Madadian
Laboratory Director

Client Service contact: Shea Greiner 303-425-6021

Certifications: CO, ID, NE, NM, ND (R-027) (PW) UT (NELAP CO00049)

Test results relate only to samples analyzed.

Sections: 1 2 3 4 5

Table of Contents

-1-

Accutest Laboratories

Sample Summary

K.P. Kauffmann Company, Inc.

Job No: D31029

Wattenberg GW

Sample Number	Collected Date	Time	By	Received	Matrix Code	Matrix Type	Client Sample ID
D31029-1	01/13/12	09:50	MH	01/13/12	AQ	Ground Water	OW-1
D31029-2	01/13/12	10:50	MH	01/13/12	AQ	Ground Water	OW-2
D31029-3	01/13/12	11:45	MH	01/13/12	AQ	Ground Water	OW-3

Sample Summary

K.P. Kauffmann Company, Inc.

Job No: D31029

Wattenberg GW

Sample Number	Collected Date	Time	By	Received	Matrix Code	Matrix Type	Client Sample ID
D31029-1	01/13/12	09:50	MH	01/13/12	AQ	Ground Water	OW-1
D31029-2	01/13/12	10:50	MH	01/13/12	AQ	Ground Water	OW-2
D31029-3	01/13/12	11:45	MH	01/13/12	AQ	Ground Water	OW-3

CASE NARRATIVE / CONFORMANCE SUMMARY

Client:	K.P. Kauffmann Company, Inc.	**Job No**	D31029
Site:	Wattenberg GW	**Report Date**	1/20/2012 10:26:05 AM

On 01/13/2012, 3 sample(s), 0 Trip Blank(s), and 0 Field Blank(s) were received at Accutest Mountain States (AMS) at a temperature of 3.9 °C. The samples were intact and properly preserved, unless noted below. An AMS Job Number of D31029 was assigned to the project. The lab sample IDs, client sample IDs, and date of sample collection are detailed in the report's Results Summary.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Volatiles by GC By Method SW846 8021B

Matrix AQ **Batch ID:** GTA837

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D31053-1MS, D31053-1MSD were used as the QC samples indicated.

AMS certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting AMS's Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

AMS is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. This report is authorized by AMS indicated via signature on the report cover.

Mountain States ACCUTEST LABORATORIES

Sample Results

Report of Analysis

Accutest Laboratories

Report of Analysis

Client Sample ID:	OW-1		
Lab Sample ID:	D31029-1	Date Sampled:	01/13/12
Matrix:	AQ - Ground Water	Date Received:	01/13/12
Method:	SW846 8021B	Percent Solids:	n/a
Project:	Wattenberg GW		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	TA14968.D	1	01/18/12	SK	n/a	n/a	GTA837
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	2.0	ug/l	
100-41-4	Ethylbenzene	ND	2.0	ug/l	
1330-20-7	Xylenes (total)	ND	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
120-82-1	1,2,4-Trichlorobenzene	103%		60-140%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	OW-2		
Lab Sample ID:	D31029-2	Date Sampled:	01/13/12
Matrix:	AQ - Ground Water	Date Received:	01/13/12
Method:	SW846 8021B	Percent Solids:	n/a
Project:	Wattenberg GW		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	TA14969.D	1	01/18/12	SK	n/a	n/a	GTA837
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	2.0	ug/l	
100-41-4	Ethylbenzene	ND	2.0	ug/l	
1330-20-7	Xylenes (total)	ND	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
120-82-1	1,2,4-Trichlorobenzene	102%		60-140%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	OW-3		
Lab Sample ID:	D31029-3	Date Sampled:	01/13/12
Matrix:	AQ - Ground Water	Date Received:	01/13/12
Method:	SW846 8021B	Percent Solids:	n/a
Project:	Wattenberg GW		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	TA14970.D	1	01/18/12	SK	n/a	n/a	GTA837
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	2.0	ug/l	
100-41-4	Ethylbenzene	ND	2.0	ug/l	
1330-20-7	Xylenes (total)	ND	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
120-82-1	1,2,4-Trichlorobenzene	102%		60-140%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Mountain States ACCUTEST LABORATORIES

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

CHAIN OF CUSTODY

ACCUTEST Laboratories

4036 Youngfield St., Wheat Ridge, CO 80033
303-425-6021 FAX: 303-425-6854

FED-EX Tracking #: | Bottle Order Control #:
Accutest Quote #: | Accutest Job #: D31029

Client / Reporting Information

Company Name: K.P. Kauffman Company, Inc.
Address: 1675 Broadway, Suite 2800
City: Denver State: CO Zip: 80202-4628
Project Contact: MICHAEL HATTEL mhattel@msn.com
Phone #: 303-665-1400
Samplers's Name: MICHAEL HATTEL

Project Information

Project Name: WATTENBERG GROUNDWATER
Street:
City: Fort Lupton State: CO
Project #:
Fax #:
Client Purchase Order #: 7591

Requested Analysis

Matrix Codes

DW- Drinking Water
GW- Ground Water
WW- Water
SW- Surface Water
SO- Soil
SL- Sludge
OI-Oil
LIQ- Other Liquid
AIR- Air
SOL-Other Solid
WP-Wipe

Accutest Sample #	Field ID / Point of Collection	SUMMA # / MEOH Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	Number of preserved Bottles: HCl	MeOH	HNO3	H2SO4	NONE	NaHSO4	MEOH	ENCORE	BTEX 8021	LAB USE ONLY
	OW-1		1-13-12	0950	MDH	GW	3	X								x	01
	OW-2		"	1050	MDH	GW	3	X								x	02
	OW-3		"	1145	MDH	GW	3	X								x	03

1/13/12

Turnaround Time (Business days)

X Std. [redacted] 16021

Approved By:/ Date:

Emergency T/A data available VIA Lablink

Data Deliverable Information

- Commercial "A"
- Commercial "B"
- NJ Reduced
- NJ Full
- X Hard Copy
- FULL CLP
- NYASP Category A
- NYASP Category B
- State Forms
- X PDF

Comments / Remarks

PDF copy to Kent Gilbert with KPK at kgilbert@kpk.com

PDF copy also to Mike Hattel with APEX at mhattel@msn.com

Hard copy ALSO to Mike Hattel with APEX, P.O. Box 369,

Louisville, CO 80027-0369

Sample Custody must be documented below each time samples change possession, including courier delivery.

	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1	Michael Hattel	1-13-12 1420	1 Deborah Whitney	Deborah Whitney	1/13/12 1520	2
3	Relinquished by:	Date Time:	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4
5	Relinquished by:	Date Time:	Received By: 5	Custody Seal # CO	Preserved where applicable	On Ice ✓ Cooler Temp. 3.9

4.1 4

D31029: Chain of Custody
Page 1 of 2

ACCUTEST LABORATORIES

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: D31029 **Client:** KP KAUFFMAN **Immediate Client Services Action Required:** No

Date / Time Received: 1/13/2012 3:20:00 PM **No. Coolers:** 1 **Client Service Action Required at Login:** No

Project: WATTENBERG **Airbill #'s:** CO

Cooler Security	Y	N		Y	N
1. Custody Seals Present:	☑	☐	3. COC Present:	☑	☐
2. Custody Seals Intact:	☑	☐	4. Smpl Dates/Time OK	☑	☐

Cooler Temperature	Y	N
1. Temp criteria achieved:	☑	☐
2. Cooler temp verification:	Infared gun	
3. Cooler media:	Ice (bag)	

Quality Control Preservation	Y	N	N/A
1. Trip Blank present / cooler:	☐	☐	
2. Trip Blank listed on COC:	☐	☐	
3. Samples preserved properly:	☑	☐	
4. VOCs headspace free:	☐	☐	☑

Sample Integrity - Documentation	Y	N
1. Sample labels present on bottles:	☑	☐
2. Container labeling complete:	☑	☐
3. Sample container label / COC agree:	☑	☐

Sample Integrity - Condition	Y	N
1. Sample recvd within HT:	☑	☐
2. All containers accounted for:	☑	☐
3. Condition of sample:	Intact	

Sample Integrity - Instructions	Y	N	N/A
1. Analysis requested is clear:	☑	☐	
2. Bottles received for unspecified tests	☐	☑	
3. Sufficient volume rec'd for analysis:	☑	☐	
4. Compositing instructions clear:	☐	☐	☑
5. Filtering instructions clear:	☐	☐	☑

Comments

Accutest Laboratories
V:(303) 425-6021

4036 Youngfield Street
F: (303) 425-6854

Wheat Ridge, CO
www/accutest.com

4.1 4

D31029: Chain of Custody
Page 2 of 2

Mountain States ACCUTEST LABORATORIES

GC Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: D31029
Account: KPKCOD K.P. Kauffmann Company, Inc.
Project: Wattenberg GW

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GTA837-MB	TA14958.D	1	01/18/12	SK	n/a	n/a	GTA837

The QC reported here applies to the following samples: Method: SW846 8021B

D31029-1, D31029-2, D31029-3

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.20	ug/l	
100-41-4	Ethylbenzene	ND	2.0	1.0	ug/l	
108-88-3	Toluene	ND	2.0	1.0	ug/l	
1330-20-7	Xylenes (total)	ND	2.0	2.0	ug/l	

CAS No.	Surrogate Recoveries		Limits
120-82-1	1,2,4-Trichlorobenzene	105%	60-140%

Blank Spike Summary

Job Number: D31029
Account: KPKCOD K.P. Kauffmann Company, Inc.
Project: Wattenberg GW

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GTA837-BS	TA14959.D	1	01/18/12	SK	n/a	n/a	GTA837

The QC reported here applies to the following samples: Method: SW846 8021B

D31029-1, D31029-2, D31029-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	27.2	26.8	99	70-130
100-41-4	Ethylbenzene	45.6	45.5	100	70-130
108-88-3	Toluene	212	201	95	70-130
1330-20-7	Xylenes (total)	216	220	102	68-130

CAS No.	Surrogate Recoveries	BSP	Limits
120-82-1	1,2,4-Trichlorobenzene	110%	60-140%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: D31029
Account: KPKCOD K.P. Kauffmann Company, Inc.
Project: Wattenberg GW

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D31053-1MS	TA14966.D	5	01/18/12	SK	n/a	n/a	GTA837
D31053-1MSD	TA14967.D	5	01/18/12	SK	n/a	n/a	GTA837
D31053-1	TA14965.D	1	01/18/12	SK	n/a	n/a	GTA837

The QC reported here applies to the following samples: **Method: SW846 8021B**

D31029-1, D31029-2, D31029-3

CAS No.	Compound	D31053-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND		136	127	93	124	91	2	67-130/30
100-41-4	Ethylbenzene	ND		228	213	93	208	91	2	62-130/30
108-88-3	Toluene	ND		1060	947	90	925	87	2	66-130/30
1330-20-7	Xylenes (total)	ND		1080	1040	96	1020	94	2	61-130/30

CAS No.	Surrogate Recoveries	MS	MSD	D31053-1	Limits
120-82-1	1,2,4-Trichlorobenzene	106%	109%	104%	60-140%

Mountain States
ACCUTEST
LABORATORIES

01/09/12

Technical Report for

K.P. Kauffmann Company, Inc.

Wattenberg GW

PO# 7591

Accutest Job Number: D30535

Sampling Date: 12/21/11

Report to:

Apex Consulting Services
PO Box 369
Louisville, CO 80027-0369

ATTN: Mike Hattel

Total number of pages in report: 40

ACCREDITED IN ACCORDANCE WITH nelac

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Brad Madadian
Laboratory Director

Client Service contact: Shea Greiner 303-425-6021

Certifications: CO, ID, NE, NM, ND (R-027) (PW) UT (NELAP CO00049)

Test results relate only to samples analyzed.

Sections: 1 2 3 4 5 6 7

Table of Contents

-1-

Wet Chemistry By Method SM20 2320B

Matrix AQ	Batch ID: GN13081

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D30551-1DUP, D30551-1MS, D30551-1MSD were used as the QC samples for the Alkalinity, Total as CaCO3 analysis.

Matrix AQ	Batch ID: GN13085

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.

Matrix AQ	Batch ID: GN13086

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.

Wet Chemistry By Method SM20 2540C

Matrix AQ	Batch ID: GN13041

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D30535-1DUP were used as the QC samples for the Solids, Total Dissolved analysis.

Wet Chemistry By Method SM20 5310B

Matrix AQ	Batch ID: GP6210

- All samples were prepared and analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D30425-4DUP, D30535-1MS, D30535-1MSD were used as the QC samples for the Total Organic Carbon analysis.

AMS certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting AMS's Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

AMS is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. This report is authorized by AMS indicated via signature on the report cover.

Sample Results

Report of Analysis

Accutest Laboratories

Report of Analysis

Client Sample ID:	OW-1		
Lab Sample ID:	D30535-1	**Date Sampled:**	12/21/11
Matrix:	AQ - Ground Water	**Date Received:**	12/21/11
Method:	SW846 8021B	**Percent Solids:**	n/a
Project:	Wattenberg GW		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	TB14450.D	1	12/28/11	SK	n/a	n/a	GTB816
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	1.0	1.0	0.20	ug/l	
108-88-3	Toluene	ND	2.0	1.0	ug/l	
100-41-4	Ethylbenzene	ND	2.0	1.0	ug/l	
1330-20-7	Xylenes (total)	ND	2.0	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
120-82-1	1,2,4-Trichlorobenzene	104%		60-140%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	OW-1		
Lab Sample ID:	D30535-1	**Date Sampled:**	12/21/11
Matrix:	AQ - Ground Water	**Date Received:**	12/21/11
		Percent Solids:	n/a
Project:	Wattenberg GW		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Alkalinity, Bicarbonate as CaC	803	5.0	mg/l	1	12/30/11	JD	SM20 2320B
Alkalinity, Carbonate	< 5.0	5.0	mg/l	1	12/30/11	JD	SM20 2320B
Alkalinity, Total as CaCO3	803	5.0	mg/l	1	12/30/11	JD	SM20 2320B
Chloride	4150	100	mg/l	200	12/21/11 18:57	GH	EPA 300/SW846 9056
HEM Oil and Grease	10.3	5.6	mg/l	1	01/04/12	SWT	EPA 1664A
Nitrogen, Nitrate [a]	< 0.90	0.90	mg/l	20	12/21/11 14:05	GH	EPA 300/SW846 9056
Nitrogen, Nitrite [a]	< 6.1	6.1	mg/l	100	12/21/11 18:43	GH	EPA 300/SW846 9056
Solids, Total Dissolved	10100	10	mg/l	1	12/27/11	JK	SM20 2540C
Sulfate	1660	50	mg/l	100	12/21/11 18:43	GH	EPA 300/SW846 9056
Total Organic Carbon	34.5	2.0	mg/l	2	12/29/11 15:44	NS	SM20 5310B

(a) Elevated detection limit due to matrix interference.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	OW-1		
Lab Sample ID:	D30535-1F	**Date Sampled:**	12/21/11
Matrix:	AQ - Groundwater Filtered	**Date Received:**	12/21/11
		Percent Solids:	n/a
Project:	Wattenberg GW		

Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Calcium	427000	400	ug/l	1	12/23/11	12/23/11	JB	SW846 6010B [1]	SW846 3010A [3]
Magnesium	407000	200	ug/l	1	12/23/11	12/23/11	JB	SW846 6010B [1]	SW846 3010A [3]
Potassium	11900	1000	ug/l	1	12/23/11	12/23/11	JB	SW846 6010B [1]	SW846 3010A [3]
Sodium	2530000	4000	ug/l	10	12/23/11	12/28/11	JB	SW846 6010B [2]	SW846 3010A [3]

(1) Instrument QC Batch: MA2075
(2) Instrument QC Batch: MA2082
(3) Prep QC Batch: MP6540

RL = Reporting Limit

Accutest Laboratories

Report of Analysis

Client Sample ID:	OW-2		
Lab Sample ID:	D30535-2	**Date Sampled:**	12/21/11
Matrix:	AQ - Ground Water	**Date Received:**	12/21/11
Method:	SW846 8021B	**Percent Solids:**	n/a
Project:	Wattenberg GW		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	TB14451.D	1	12/28/11	SK	n/a	n/a	GTB816
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	0.25	1.0	0.20	ug/l	J
108-88-3	Toluene	ND	2.0	1.0	ug/l	
100-41-4	Ethylbenzene	ND	2.0	1.0	ug/l	
1330-20-7	Xylenes (total)	ND	2.0	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
120-82-1	1,2,4-Trichlorobenzene	96%		60-140%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	OW-2		
Lab Sample ID:	D30535-2	**Date Sampled:**	12/21/11
Matrix:	AQ - Ground Water	**Date Received:**	12/21/11
		Percent Solids:	n/a
Project:	Wattenberg GW		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Alkalinity, Bicarbonate as CaC	986	5.0	mg/l	1	12/30/11	JD	SM20 2320B
Alkalinity, Carbonate	< 5.0	5.0	mg/l	1	12/30/11	JD	SM20 2320B
Alkalinity, Total as CaCO3	986	5.0	mg/l	1	12/30/11	JD	SM20 2320B
Chloride	4740	200	mg/l	400	12/21/11 19:25	GH	EPA 300/SW846 9056
HEM Oil and Grease	12.8	5.0	mg/l	1	01/04/12	SWT	EPA 1664A
Nitrogen, Nitrate	8.8	0.90	mg/l	20	12/21/11 14:19	GH	EPA 300/SW846 9056
Nitrogen, Nitrite [a]	< 6.1	6.1	mg/l	100	12/21/11 19:11	GH	EPA 300/SW846 9056
Solids, Total Dissolved	16800	10	mg/l	1	12/27/11	JK	SM20 2540C
Sulfate	5270	200	mg/l	400	12/21/11 19:25	GH	EPA 300/SW846 9056
Total Organic Carbon	46.4	2.0	mg/l	2	12/29/11 15:57	NS	SM20 5310B

(a) Elevated detection limit due to matrix interference.

RL = Reporting Limit

Accutest Laboratories

Report of Analysis

Client Sample ID:	OW-2		
Lab Sample ID:	D30535-2F	**Date Sampled:**	12/21/11
Matrix:	AQ - Groundwater Filtered	**Date Received:**	12/21/11
		Percent Solids:	n/a
Project:	Wattenberg GW		

Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Calcium	568000	400	ug/l	1	12/23/11	12/23/11	JB	SW846 6010B [1]	SW846 3010A [3]
Magnesium	682000	200	ug/l	1	12/23/11	12/23/11	JB	SW846 6010B [1]	SW846 3010A [3]
Potassium	19900	1000	ug/l	1	12/23/11	12/23/11	JB	SW846 6010B [1]	SW846 3010A [3]
Sodium	4050000	4000	ug/l	10	12/23/11	12/28/11	JB	SW846 6010B [2]	SW846 3010A [3]

(1) Instrument QC Batch: MA2075
(2) Instrument QC Batch: MA2082
(3) Prep QC Batch: MP6540

RL = Reporting Limit

Accutest Laboratories

Report of Analysis

Client Sample ID:	OW-3		
Lab Sample ID:	D30535-3	Date Sampled:	12/21/11
Matrix:	AQ - Ground Water	Date Received:	12/21/11
Method:	SW846 8021B	Percent Solids:	n/a
Project:	Wattenberg GW		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	TB14452.D	1	12/28/11	SK	n/a	n/a	GTB816
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	1.3	1.0	0.20	ug/l	
108-88-3	Toluene	ND	2.0	1.0	ug/l	
100-41-4	Ethylbenzene	ND	2.0	1.0	ug/l	
1330-20-7	Xylenes (total)	ND	2.0	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
120-82-1	1,2,4-Trichlorobenzene	95%		60-140%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	OW-3		
Lab Sample ID:	D30535-3	Date Sampled:	12/21/11
Matrix:	AQ - Ground Water	Date Received:	12/21/11
		Percent Solids:	n/a
Project:	Wattenberg GW		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Alkalinity, Bicarbonate as CaC	988	5.0	mg/l	1	12/30/11	JD	SM20 2320B
Alkalinity, Carbonate	< 5.0	5.0	mg/l	1	12/30/11	JD	SM20 2320B
Alkalinity, Total as CaCO3	988	5.0	mg/l	1	12/30/11	JD	SM20 2320B
Chloride	3650	200	mg/l	400	12/21/11 19:53	GH	EPA 300/SW846 9056
HEM Oil and Grease	7.3	5.8	mg/l	1	01/04/12	SWT	EPA 1664A
Nitrogen, Nitrate	4.1	0.90	mg/l	20	12/21/11 14:33	GH	EPA 300/SW846 9056
Nitrogen, Nitrite [a]	< 6.1	6.1	mg/l	100	12/21/11 19:39	GH	EPA 300/SW846 9056
Solids, Total Dissolved	15500	10	mg/l	1	12/27/11	JK	SM20 2540C
Sulfate	5620	200	mg/l	400	12/21/11 19:53	GH	EPA 300/SW846 9056
Total Organic Carbon	45.9	2.0	mg/l	2	12/29/11 16:08	NS	SM20 5310B

(a) Elevated detection limit due to matrix interference.

RL = Reporting Limit

Accutest Laboratories

Report of Analysis

Client Sample ID:	OW-3		
Lab Sample ID:	D30535-3F	**Date Sampled:**	12/21/11
Matrix:	AQ - Groundwater Filtered	**Date Received:**	12/21/11
		Percent Solids:	n/a
Project:	Wattenberg GW		

Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Calcium	455000	400	ug/l	1	12/23/11	12/23/11	JB	SW846 6010B [1]	SW846 3010A [3]
Magnesium	596000	2000	ug/l	10	12/23/11	12/28/11	JB	SW846 6010B [2]	SW846 3010A [3]
Potassium	18000	10000	ug/l	10	12/23/11	12/28/11	JB	SW846 6010B [2]	SW846 3010A [3]
Sodium	3960000	4000	ug/l	10	12/23/11	12/28/11	JB	SW846 6010B [2]	SW846 3010A [3]

(1) Instrument QC Batch: MA2075
(2) Instrument QC Batch: MA2082
(3) Prep QC Batch: MP6540

RL = Reporting Limit

Accutest Laboratories

Report of Analysis

Client Sample ID:	OW-4		
Lab Sample ID:	D30535-4	Date Sampled:	12/21/11
Matrix:	AQ - Ground Water	Date Received:	12/21/11
Method:	SW846 8021B	Percent Solids:	n/a
Project:	Wattenberg GW		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	TB14453.D	1	12/28/11	SK	n/a	n/a	GTB816
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.20	ug/l	
108-88-3	Toluene	ND	2.0	1.0	ug/l	
100-41-4	Ethylbenzene	ND	2.0	1.0	ug/l	
1330-20-7	Xylenes (total)	ND	2.0	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
120-82-1	1,2,4-Trichlorobenzene	97%		60-140%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	OW-4		
Lab Sample ID:	D30535-4	**Date Sampled:**	12/21/11
Matrix:	AQ - Ground Water	**Date Received:**	12/21/11
		Percent Solids:	n/a
Project:	Wattenberg GW		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Alkalinity, Bicarbonate as CaC	322	5.0	mg/l	1	12/30/11	JD	SM20 2320B
Alkalinity, Carbonate	< 5.0	5.0	mg/l	1	12/30/11	JD	SM20 2320B
Alkalinity, Total as CaCO3	322	5.0	mg/l	1	12/30/11	JD	SM20 2320B
Chloride	3430	200	mg/l	400	12/21/11 20:21	GH	EPA 300/SW846 9056
HEM Oil and Grease	8.1	6.2	mg/l	1	01/04/12	SWT	EPA 1664A
Nitrogen, Nitrate	69.9	4.5	mg/l	100	12/21/11 20:07	GH	EPA 300/SW846 9056
Nitrogen, Nitrite [a]	< 6.1	6.1	mg/l	100	12/21/11 20:07	GH	EPA 300/SW846 9056
Solids, Total Dissolved	17100	10	mg/l	1	12/27/11	JK	SM20 2540C
Sulfate	7210	200	mg/l	400	12/21/11 20:21	GH	EPA 300/SW846 9056
Total Organic Carbon	73.8	5.0	mg/l	5	12/29/11 16:21	NS	SM20 5310B

(a) Elevated detection limit due to matrix interference.

RL = Reporting Limit

Accutest Laboratories

Report of Analysis

Client Sample ID:	OW-4		
Lab Sample ID:	D30535-4F	**Date Sampled:**	12/21/11
Matrix:	AQ - Groundwater Filtered	**Date Received:**	12/21/11
		Percent Solids:	n/a
Project:	Wattenberg GW		

Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Calcium	507000	400	ug/l	1	12/23/11	12/23/11	JB	SW846 6010B [1]	SW846 3010A [3]
Magnesium	578000	200	ug/l	1	12/23/11	12/23/11	JB	SW846 6010B [1]	SW846 3010A [3]
Potassium	22000	1000	ug/l	1	12/23/11	12/23/11	JB	SW846 6010B [1]	SW846 3010A [3]
Sodium	3910000	4000	ug/l	10	12/23/11	12/28/11	JB	SW846 6010B [2]	SW846 3010A [3]

(1) Instrument QC Batch: MA2075
(2) Instrument QC Batch: MA2082
(3) Prep QC Batch: MP6540

RL = Reporting Limit

Mountain States ACCUTEST LABORATORIES

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

CHAIN OF CUSTODY

ACCUTEST Laboratories

4036 Youngfield St., Wheat Ridge, CO 80033
303-425-6021 FAX: 303-425-6854

FED-EX Tracking #	Bottle Order Control #
Accutest Quote #	Accutest Job # D30535

Client / Reporting Information

- Company Name: K.P. Kauffman Company, Inc.
- Address: 1675 Broadway, Suite 2800
- City: Denver State: CO Zip: 80202-4628
- Project Contact: MICHAEL HATTEL mhattel@msn.com
- Phone #: 303-665-1400
- Samplers's Name: MICHAEL HATTEL

Project Information

- Project Name: WATTENBERG GROUNDWATER
- Street:
- City: Fort Lupton State: CO
- Project #:
- Fax #:
- Client Purchase Order #: 7591

Requested Analysis: OIL & GREASE 1664; ANIONS (NITRATE, NITRITE, SULFATE, CHLORIDE); TOC; CATIONS (Ca, K, Mg, NA); BTEX 8021; ALKALINITY (CARB/BICARB); TDS

Matrix Codes: DW- Drinking Water, GW- Ground Water, WW- Water, SW- Surface Water, SO- Soil, SL-Sludge, OI-Oil, LIQ- Other Liquid, AIR- Air, SOL-Other Solid, WP-Wipe

Accutest Sample #	Field ID / Point of Collection	SUMMA # / MEOH Vial #	Date	Time	Sampled by	Matrix	# of bottles	HCl	NaOH	HNO3	H2SO4	NONE	NaHSO4	MEOH	ENCORE	OIL & GREASE 1664	ANIONS	TOC	CATIONS	BTEX 8021	ALKALINITY	TDS					LAB USE ONLY
	OW-1		12/21/11	0800	MDH	GW	9	X			X					X	X	X	X	X	X	X					01
	OW-2		↓	0855	MDH	GW	9	X			X					X	X	X	X	X	X	X					02
	OW-3		↓	0955	MDH	GW	8	X			X					X	X	X	X	X	X	X					03
	OW-4		↓	1100	MDH	GW	8	X			X					X	X	X	X	X	X	X					04
																											05 TD
																											12/21/11

Turnaround Time (Business days)

- [X] Std. 10 Business Days
- Approved By:/ Date:
- Emergency T/A data available VIA Lablink

Data Deliverable Information

- [ ] Commercial "A"
- [ ] Commercial "B"
- [ ] NJ Reduced
- [ ] NJ Full
- [x] Hard Copy
- [ ] FULL CLP
- [ ] NYASP Category A
- [ ] NYASP Category B
- [ ] State Forms
- [x] PDF

Comments / Remarks

PDF copy to Kent Gilbert with KPK at kgilbert@kpk.com

PDF copy also to Mike Hattel with APEX at mhattel@msn.com

Hard copy ALSO to Mike Hattel with APEX, P.O. Box 369,

Louisville, CO 80027-0369 TB 10/26/11 12/21/11

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1 [signature]	12/20/11 1245	1 [signature] 12/21/11 1245	2		2
Relinquished by: 3	Date Time:	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4
Relinquished by: 5	Date Time:	Received By: 5	Custody Seal # HD	Preserved where applicable ☒	On Ice ☒ Cooler Temp. 4.0

only received one O&G bottle for sample # 3 and 4 12/21/11

D30535: Chain of Custody

Page 1 of 2

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: D30535 **Client:** K.P.KAUFFMAN COMPANY INC. **Immediate Client Services Action Required:** No

Date / Time Received: 12/21/2011 12:45:00 P **No. Coolers:** 1 **Client Service Action Required at Login:** No

Project: WATTERBERG GROUNDWATER **Airbill #'s:** HD

Cooler Security	Y	N		Y	N
1. Custody Seals Present:	☑	☐	3. COC Present:	☑	☐
2. Custody Seals Intact:	☑	☐	4. Smpl Dates/Time OK	☑	☐

Cooler Temperature	Y	N
1. Temp criteria achieved:	☑	☐
2. Cooler temp verification:	Infared gun	
3. Cooler media:	Ice (bag)	

Quality Control Preservation	Y	N	N/A
1. Trip Blank present / cooler:	☑	☐	
2. Trip Blank listed on COC:	☑	☐	
3. Samples preserved properly:	☑	☐	
4. VOCs headspace free:	☑	☐	☐

Sample Integrity - Documentation	Y	N
1. Sample labels present on bottles:	☑	☐
2. Container labeling complete:	☑	☐
3. Sample container label / COC agree:	☑	☐

Sample Integrity - Condition	Y	N
1. Sample recvd within HT:	☑	☐
2. All containers accounted for:	☑	☐
3. Condition of sample:	Intact	

Sample Integrity - Instructions	Y	N	N/A
1. Analysis requested is clear:	☑	☐	
2. Bottles received for unspecified tests	☐	☑	
3. Sufficient volume rec'd for analysis:	☑	☐	
4. Compositing instructions clear:	☐	☐	☑
5. Filtering instructions clear:	☐	☐	☑

Comments

Accutest Laboratories
V:(303) 425-6021

4036 Youngfield Street
F: (303) 425-6854

Wheat Ridge, CO
www/accutest.com

4.1

4

D30535: Chain of Custody
Page 2 of 2

Mountain States ACCUTEST LABORATORIES

GC Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Blank Spike Summary

Job Number: D30535
Account: KPKCOD K.P. Kauffmann Company, Inc.
Project: Wattenberg GW

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GTB816-BS	TB14434.D	1	12/28/11	SK	n/a	n/a	GTB816

The QC reported here applies to the following samples: Method: SW846 8021B

D30535-1, D30535-2, D30535-3, D30535-4

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	27.2	29.1	107	70-130
100-41-4	Ethylbenzene	45.6	47.3	104	70-130
108-88-3	Toluene	212	206	97	70-130
1330-20-7	Xylenes (total)	216	238	110	68-130

CAS No.	Surrogate Recoveries	BSP	Limits
120-82-1	1,2,4-Trichlorobenzene	116%	60-140%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: D30535
Account: KPKCOD K.P. Kauffmann Company, Inc.
Project: Wattenberg GW

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D30425-2MS	TB14436.D	1	12/28/11	SK	n/a	n/a	GTB816
D30425-2MSD	TB14437.D	1	12/28/11	SK	n/a	n/a	GTB816
D30425-2	TB14435.D	1	12/28/11	SK	n/a	n/a	GTB816

The QC reported here applies to the following samples: Method: SW846 8021B

D30535-1, D30535-2, D30535-3, D30535-4

CAS No.	Compound	D30425-2 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	99.4		27.2	128	105	133	124	4	67-130/30
100-41-4	Ethylbenzene	7.0		45.6	40.6	74	40.8	74	0	62-130/30
108-88-3	Toluene	73.4		212	216	67	218	68	1	66-130/30
1330-20-7	Xylenes (total)	38.4		216	209	79	210	79	0	61-130/30

CAS No.	Surrogate Recoveries	MS	MSD	D30425-2	Limits
120-82-1	1,2,4-Trichlorobenzene	108%	99%	106%	60-140%

Mountain States ACCUTEST LABORATORIES

Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: D30535
Account: KPKCOD - K.P. Kauffmann Company, Inc.
Project: Wattenberg GW

QC Batch ID: MP6540
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 12/23/11

Metal	RL	IDL	MDL	MB raw	final
Aluminum	100	5.9	5.9		
Antimony	30	3.1	3.1		
Arsenic	25	5.9	5.9		
Barium	10	1.1	1.1		
Beryllium	10	.44	.5		
Boron	50	4.8	4.8		
Cadmium	10	.27	.27		
Calcium	400	9.6	15	48.8	<400
Chromium	10	.18	.79		
Cobalt	5.0	.35	.35		
Copper	10	.85	2.8		
Iron	70	3.4	13		
Lead	50	1.6	2.1		
Lithium	2.0	.28	1.2		
Magnesium	200	5.8	10	2.1	<200
Manganese	5.0	.053	.31		
Molybdenum	10	.45	.87		
Nickel	30	.43	1		
Phosphorus	100	11	20		
Potassium	1000	55	55	24.7	<1000
Selenium	50	3.8	3.8		
Silicon	50	3.8	3.8		
Silver	30	.18	.31		
Sodium	400	110	110	95.3	<400
Strontium	5.0		.25		
Thallium	10	2.9	2.9		
Tin	50	5.5	9.9		
Titanium	10	.11	.31		
Uranium	50	1.5	3.5		
Vanadium	10	.16	.22		
Zinc	30	.28	1.8		

Associated samples MP6540: D30535-1F, D30535-2F, D30535-3F, D30535-4F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: D30535
Account: KPKCOD - K.P. Kauffmann Company, Inc.
Project: Wattenberg GW

QC Batch ID: MP6540
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date:

Metal

(anr) Analyte not requested

6.1.1
6

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D30535
Account: KPKCOD - K.P. Kauffmann Company, Inc.
Project: Wattenberg GW

QC Batch ID: MP6540
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 12/23/11

Metal	D30545-1 Original MS		Spikelot MPICPALL	% Rec	QC Limits
Aluminum					
Antimony					
Arsenic	anr				
Barium	anr				
Beryllium					
Boron					
Cadmium	anr				
Calcium	127000	152000	25000	100.0	75-125
Chromium	anr				
Cobalt					
Copper	anr				
Iron	anr				
Lead	anr				
Lithium					
Magnesium	24900	50600	25000	102.8	75-125
Manganese	anr				
Molybdenum					
Nickel					
Phosphorus					
Potassium	9160	37100	25000	111.8	75-125
Selenium	anr				
Silicon					
Silver	anr				
Sodium	124000	150000	25000	104.0	75-125
Strontium					
Thallium					
Tin					
Titanium					
Uranium					
Vanadium					
Zinc					

Associated samples MP6540: D30535-1F, D30535-2F, D30535-3F, D30535-4F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D30535
Account: KPKCOD - K.P. Kauffmann Company, Inc.
Project: Wattenberg GW

QC Batch ID: MP6540
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date:

Metal

(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D30535
Account: KPKCOD - K.P. Kauffmann Company, Inc.
Project: Wattenberg GW

QC Batch ID: MP6540
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 12/23/11

Metal	D30545-1 Original	MSD	Spikelot MPICPALL	% Rec	MSD RPD	QC Limit
Aluminum						
Antimony						
Arsenic	anr					
Barium	anr					
Beryllium						
Boron						
Cadmium	anr					
Calcium	127000	152000	25000	100.0	0.0	20
Chromium	anr					
Cobalt						
Copper	anr					
Iron	anr					
Lead	anr					
Lithium						
Magnesium	24900	50200	25000	101.2	0.8	20
Manganese	anr					
Molybdenum						
Nickel						
Phosphorus						
Potassium	9160	36700	25000	110.2	1.1	20
Selenium	anr					
Silicon						
Silver	anr					
Sodium	124000	149000	25000	100.0	0.7	20
Strontium						
Thallium						
Tin						
Titanium						
Uranium						
Vanadium						
Zinc						

Associated samples MP6540: D30535-1F, D30535-2F, D30535-3F, D30535-4F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D30535
Account: KPKCOD - K.P. Kauffmann Company, Inc.
Project: Wattenberg GW

QC Batch ID: MP6540
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date:

Metal

(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

6.1.2
6

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: D30535
Account: KPKCOD - K.P. Kauffmann Company, Inc.
Project: Wattenberg GW

QC Batch ID: MP6540
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 12/23/11

Metal	BSP Result	Spikelot MPICPALL	% Rec	QC Limits
Aluminum				
Antimony				
Arsenic	anr			
Barium	anr			
Beryllium				
Boron				
Cadmium	anr			
Calcium	26200	25000	104.8	80-120
Chromium	anr			
Cobalt				
Copper	anr			
Iron	anr			
Lead	anr			
Lithium				
Magnesium	26200	25000	104.8	80-120
Manganese	anr			
Molybdenum				
Nickel				
Phosphorus				
Potassium	27300	25000	109.2	80-120
Selenium	anr			
Silicon				
Silver	anr			
Sodium	27000	25000	108.0	80-120
Strontium				
Thallium				
Tin				
Titanium				
Uranium				
Vanadium				
Zinc				

Associated samples MP6540: D30535-1F, D30535-2F, D30535-3F, D30535-4F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: D30535
Account: KPKCOD - K.P. Kauffmann Company, Inc.
Project: Wattenberg GW

QC Batch ID: MP6540
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date:

Metal

(anr) Analyte not requested

Mountain States ACCUTEST LABORATORIES

General Chemistry

QC Data Summaries

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: D30535
Account: KPKCOD - K.P. Kauffmann Company, Inc.
Project: Wattenberg GW

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Alkalinity, Bicarbonate as CaC	GN13085	5.0	0.0	mg/l	100	102	102.1	90-110%
Alkalinity, Carbonate	GN13086	5.0	0.0	mg/l	100	102	102.1	80-120%
Alkalinity, Total as CaCO3	GN13081	5.0	0.0	mg/l	100	102	102.1	90-110%
Chloride	GP6171/GN13001	0.50	0.0	mg/l	20	19.8	99.0	90-110%
HEM Oil and Grease	GP6223/GN13093	5.0	0.0	mg/l	40	38.3	95.8	78-114%
Nitrogen, Nitrate	GP6171/GN13001	0.045	0.0	mg/l	4.52	4.41	97.6	90-110%
Nitrogen, Nitrite	GP6171/GN13001	0.061	0.0	mg/l	6.09	6.56	107.7	90-110%
Solids, Total Dissolved	GN13041	10	0.0	mg/l	400	400	100.0	90-110%
Sulfate	GP6171/GN13001	0.50	0.0	mg/l	30	28.9	96.3	90-110%
Total Organic Carbon	GP6210/GN13082	1.0	0.0	mg/l	7.2	7.40	102.8	90-110%

Associated Samples:
Batch GN13041: D30535-1, D30535-2, D30535-3, D30535-4
Batch GN13081: D30535-1, D30535-2, D30535-3, D30535-4
Batch GN13085: D30535-1, D30535-2, D30535-3, D30535-4
Batch GN13086: D30535-1, D30535-2, D30535-3, D30535-4
Batch GP6171: D30535-1, D30535-2, D30535-3, D30535-4
Batch GP6210: D30535-1, D30535-2, D30535-3, D30535-4
Batch GP6223: D30535-1, D30535-2, D30535-3, D30535-4
(*) Outside of QC limits

7.1

7

BLANK SPIKE DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: D30535
Account: KPKCOD - K.P. Kauffmann Company, Inc.
Project: Wattenberg GW

Analyte	Batch ID	Units	Spike Amount	BSD Result	RPD	QC Limit
HEM Oil and Grease	GP6223/GN13093	mg/l	40	36.6	4.5	20%

Associated Samples:
Batch GP6223: D30535-1, D30535-2, D30535-3, D30535-4
(*) Outside of QC limits

7.2
7

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: D30535
Account: KPKCOD - K.P. Kauffmann Company, Inc.
Project: Wattenberg GW

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Alkalinity, Total as CaCO3	GN13081	D30551-1	mg/l	306	315	3.0	0-20%
Solids, Total Dissolved	GN13041	D30535-1	mg/l	10100	10100	0.0	0-25%
Total Organic Carbon	GP6210/GN13082	D30425-4	mg/l	158	158	0.0	0-20%

Associated Samples:
Batch GN13041: D30535-1, D30535-2, D30535-3, D30535-4
Batch GN13081: D30535-1, D30535-2, D30535-3, D30535-4
Batch GP6210: D30535-1, D30535-2, D30535-3, D30535-4
(*) Outside of QC limits

7.3
7

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: D30535
Account: KPKCOD - K.P. Kauffmann Company, Inc.
Project: Wattenberg GW

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Alkalinity, Total as CaCO3	GN13081	D30551-1	mg/l	306	100	407	100.8	80-120%
Chloride	GP6171/GN13001	D25282-8	mg/l	201	100	309	108.0	80-120%
Nitrogen, Nitrate	GP6171/GN13001	D25282-8	mg/l	11.0	28.3	38.4	97.0	80-120%
Nitrogen, Nitrite	GP6171/GN13001	D25282-8	mg/l	0.0	3.05	3.1	101.8	80-120%
Sulfate	GP6171/GN13001	D25282-8	mg/l	574	500	1050	95.2	80-120%
Total Organic Carbon	GP6210/GN13082	D30535-1	mg/l	34.5	50	82.0	95.0	80-120%

Associated Samples:
Batch GN13081: D30535-1, D30535-2, D30535-3, D30535-4
Batch GP6171: D30535-1, D30535-2, D30535-3, D30535-4
Batch GP6210: D30535-1, D30535-2, D30535-3, D30535-4
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits

7.4

7

MATRIX SPIKE DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: D30535
Account: KPKCOD - K.P. Kauffmann Company, Inc.
Project: Wattenberg GW

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MSD Result	RPD	QC Limit
Alkalinity, Total as CaCO3	GN13081	D30551-1	mg/l	306	100	409	0.6	20%
Chloride	GP6171/GN13001	D25282-8	mg/l	201	100	309	0.0	20%
Nitrogen, Nitrate	GP6171/GN13001	D25282-8	mg/l	11.0	28.3	38.5	0.3	20%
Nitrogen, Nitrite	GP6171/GN13001	D25282-8	mg/l	0.0	3.05	3.1	0.0	20%
Sulfate	GP6171/GN13001	D25282-8	mg/l	574	500	1050	0.0	20%
Total Organic Carbon	GP6210/GN13082	D30535-1	mg/l	34.5	50	81.7	0.4	20%

Associated Samples:
Batch GN13081: D30535-1, D30535-2, D30535-3, D30535-4
Batch GP6171: D30535-1, D30535-2, D30535-3, D30535-4
Batch GP6210: D30535-1, D30535-2, D30535-3, D30535-4
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits

7.5
7